

Reported Tuberculosis in the United States, 2008



For more information, contact

Division of Tuberculosis Elimination

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Coordinating Center for Infectious Diseases
Centers for Disease Control and Prevention
1600 Clifton Road NE
MS E-10
Atlanta, GA 30333
Phone: (404) 639-8120
Fax: (404) 639-8959
E-mail: TBInfo@cdc.gov
Web address: <http://www.cdc.gov/tb/>

Tuberculosis Information Management System (TIMS)

Phone: TIMS Help Desk: (404) 639-8444
Email: timshelp@cdc.gov

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Centers for Disease Control and Prevention Thomas R. Frieden, M.D., M.P.H.
Director

Coordinating Center for Infectious Diseases Mitchell L. Cohen, M.D.
Director

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention .. Kevin Fenton, M.D., Ph.D.
Director

Division of Tuberculosis Elimination Kenneth G. Castro, M.D.
Director

Surveillance, Epidemiology, and Outbreak Investigations Branch Thomas R. Navin, M.D.
Chief

Surveillance Team Valerie Robison, D.D.S., M.P.H., Ph.D.
Team Leader

Field Services and Evaluation Branch Kashef Ijaz, M.D.
Chief

Data Management and Statistics Branch José E. Becerra, M.D., M.P.H.
Chief

This report was prepared by

Surveillance Team
Surveillance, Epidemiology, and Outbreak Investigations Branch
Division of Tuberculosis Elimination
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Coordinating Center for Infectious Diseases
Centers for Disease Control and Prevention

Valerie Robison, D.D.S., M.P.H., Ph.D.
Carla Jeffries, M.P.H.¹
Robert Pratt, B.S.¹
Carla Winston, Ph.D.
Elvin Magee, M.P.H., M.S.
Lilia P. Manangan, R.N., M.P.H.
Lori Armstrong, Ph.D.
Glenda T. Newell
Jamie S. White, B.A.
Bethany K. Wexler, M.P.H.

Others contributing to the production of this publication

Office of the Director
Philip LoBue, M.D., FACP, FCCP

Data Management and Statistics Branch
The Tuberculosis Information and Management System Support Team
Sandy Price, P.M.P.¹
Bruce Bradley, M.P.A.
Vic Bowker¹
Katrina Park Kramer, M.P.H.¹
Cynthia Adams¹

National Center for Health Marketing, Division of Creative Services
Brenda Holmes

Field Services and Evaluation Branch

All state and local health departments throughout the United States whose staff collected and reported the data used in this publication.

¹ CDC Information Technology Support Contractor

Preface

Reports of verified cases of tuberculosis (RVCT) are submitted to the Division of Tuberculosis Elimination (DTBE), Centers for Disease Control and Prevention (CDC), by 60 reporting areas (the 50 states, the District of Columbia, New York City, Puerto Rico, and seven other jurisdictions in the Pacific and Caribbean). In January 1993, an expanded system was developed to collect additional information for each reported TB case in order to better monitor trends in TB and TB control. A software package (SURVS-TB) for data entry, analysis, and transmission of case reports to CDC was designed and implemented as part of the expanded TB surveillance system. In 1998, the Tuberculosis Information Management System (TIMS) replaced SURVS-TB.

This publication, *Reported Tuberculosis in the United States, 2008*, presents the summary data for TB cases reported to CDC, verified, and counted for 2008. It is similar to previous publications (see page xi, #19) and contains six major sections. The first section presents trends in the overall TB case counts and case rates by selected demographic and clinical characteristics. The second section presents overall case counts and case rates for the United States by selected demographic characteristics for 2008. In the third section, TB case counts and case rates are presented by state and other jurisdictions with tables of selected demographic and clinical characteristics. In the fourth section, data collected as part of the expanded system (e.g., initial drug resistance, HIV status) are presented by reporting area. Select tables report data from the Pacific and Caribbean jurisdictions. The fifth section provides TB case counts and case rates by metropolitan statistical areas (MSAs: see Technical Notes, page 9, for further details) with tables of selected demographic and clinical characteristics. Finally, the sixth section presents figures from the annual surveillance slide set, which emphasize key recent trends in TB epidemiology in the United States. The slides with accompanying text can

also be viewed and downloaded from the DTBE home page, which is accessible via the Internet at <http://www.cdc.gov/tb/>.

To help interpret the data, an Executive Commentary (page 3) and Technical Notes (page 9) have been included. In addition, the applicable case definition (MMWR 1997;46 [No. RR 10]:40-41) and “Recommendations for Counting Reported Tuberculosis Cases” are provided in Appendices A and B, respectively (page 119). The recommendations for counting TB cases, which update the original January 1977 recommendations, were first published in *Reported Tuberculosis in the United States, 1996*.

After the publication of updated *Guidelines for Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection* in April 2000¹, DTBE, CDC, began receiving reports of severe adverse events (i.e., hospitalization or death) related to the use of a 2-month course of rifampin and pyrazinamide (RZ) for treatment of latent tuberculosis infection (LTBI). Subsequently, DTBE requested and received reports and conducted on-site investigations of liver injury in persons on treatment for LTBI, and treatment guidelines were revised accordingly.²

Severe adverse events among persons receiving treatment for LTBI continue to be a public health concern and data on the annual number and trends of such events are needed. To this end, DTBE organized a working group on treatment for LTBI adverse events in September 2003. This working group was charged with the development of a national surveillance system with the following objectives:

- To assist public health officials, policy makers, and healthcare providers in the prevention of severe adverse events, and
- To serve as the basis for periodic evaluation of guidelines for treatment for LTBI and revision of these guidelines as needed.

The National System for Severe Adverse Events Associated with Treatment of LTBI has been implemented and includes collaborations among CDC, FDA, and other participating agencies to ensure interagency notification of severe adverse events. Mechanisms for quality assurance and timely dissemination of data have been developed.

DTBE urges hospices, hospitals, jails, prisons, and private medical offices to report, through their local health departments, all severe adverse events (e.g., liver injury, metabolic acidosis, anaphylaxis, seizure, severe dermatitis) leading to hospitalization or death of a person receiving treatment for LTBI that occurred after January 1, 2004, to DTBE by telephone (404-639-8401) or e-mail (LManangan@cdc.gov).

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2. American Thoracic Society/CDC. Update: Adverse event data and revised American Thoracic Society/CDC recommendations against the use of rifampin and pyrazinamide for treatment of latent tuberculosis infection—United States, 2003. *MMWR* 2003;52(31):735–9.

Previous Statistical Reports in this Series:

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2. *Special Tuberculosis Projects, December 1965*. Atlanta: CDC; 1966.
3. *Special Tuberculosis Projects, June 1966*. Atlanta: CDC; 1967.
4. *Special Tuberculosis Projects, December 1966*. Atlanta: CDC; 1967.
5. Summary Report. Atlanta: CDC; 1967.
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18. *Tuberculosis Statistics in the United States* (for years 1987–1992). Atlanta: CDC; 1989–1993.
19. *Reported Tuberculosis in the United States* (for years 1993–2007). Atlanta: CDC; 1994–2008.

**Reports from 1999 through 2008 are available on the Internet at
<http://www.cdc.gov/tb/statistics/>**

State TB Resources on the Internet*

AL	http://www.adph.org/tb/
AK	http://www.epi.alaska.gov/id/tb.stm
AR	None
AZ	http://www.azdhs.gov/phs/oids/tuberculosis
CA	http://ww2.cdph.ca.gov/programs/tb/Pages/default.aspx
CO	http://www.cdph.state.co.us/dc/tb/tbhome.html
CT	http://www.ct.gov/dph/cwp/view.asp?a=3136&q=388584
DC	http://doh.dc.gov/doh/cwp/view,a,1374,q,580737.asp
DE	http://dhss.delaware.gov/dph/dpc/tbelimination.html
FL	http://www.doh.state.fl.us/disease_ctrl/tb/
GA	http://health.state.ga.us/epi/tuber.asp
HI	http://www.hawaii.gov/health/tb
IA	http://www.idph.state.ia.us/adper/tb_control.asp
ID	http://www.healthandwelfare.idaho.gov/Health/DiseasesConditions/Tuberculosis/tabid/378/Default.aspx
IL	http://www.idph.state.il.us/health/infect/reportdis/tb.htm
IN	http://www.in.gov/isdh/19662.htm
KS	http://www.kdheks.gov/tb/statistical_information.html
KY	http://chfs.ky.gov/dph/tb.htm
LA	http://www.dhh.louisiana.gov/offices/?ID=273
MA	http://www.mass.gov/dph/cdc/tb
MD	http://www.edcp.org/tb/index.cfm
ME	http://www.maine.gov/dhhs/boh/ddc/epi/tuberculosis/
MI	http://www.michigan.gov/tb
MN	http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html
MO	http://www.dhss.mo.gov/Tuberculosis/Data.html
MT	http://www.dphhs.mt.gov/PHSD/epidemiology/commun-disease-epi-tuberculosis.shtml
MS	http://www.msds.state.ms.us/msdhsite/_static/14,0,125.html
ND	http://www.ndhealth.gov/disease/tb/
NC	http://www.epi.state.nc.us/epi/tb
NE	http://www.dhhs.ne.gov/cod/Tuberculosis/tbindex.htm
NH	http://www.dhhs.state.nh.us/DHHS/CDCS/tbinfo.htm
NJ	http://www.state.nj.us/health/cd/tbhome.htm
NM	http://www.health.state.nm.us/PHD/Infectious_Diseases/TB/2007_NM_TB_CaseRates.pdf
NYC	http://www.nyc.gov/html/doh/html/tb/tb-reports.shtml
NV	http://www.health.nv.gov/CD_HIV_TBProgram.htm
NY	http://www.nyhealth.gov/statistics/diseases/communicable/tuberculosis/
OH	http://www.odh.ohio.gov/healthstats/disease/tb1.aspx
OK	http://www.ok.gov/health/Disease_Prevention_Preparedness/Acute_Disease_Service/Disease_Information/CDD_Tuberculosis_Page.html
OR	http://oregon.gov/DHS/ph/tb/
PA	http://www.health.state.pa.us/PHP/TB/tb.htm
RI	http://www.health.ri.gov/disease/communicable/tb/index.php
PR	http://www.salud.gov.pr/Programas/ProgramaTuberculosis/Pages/DatosEstadisticosTuberculosis.aspx
SC	http://www.scdhec.net/health/disease/tb/index.htm
SD	http://doh.sd.gov/tb
TN	http://health.state.tn.us/CEDS/TB/index.htm
TX	http://www.dshs.state.tx.us/idcu/disease/tb/statistics/
UT	http://www.health.utah.gov/cdc/tb_home.htm
VA	http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/Programs/Tuberculosis/
VT	http://healthvermont.gov/prevent/tb/Tuberculosis.aspx
WA	http://www.doh.wa.gov/cfh/tb
WI	http://www.dhfs.wisconsin.gov/tb
WV	http://www.wvtb.org
WY	http://www.health.wyo.gov/PHSD/tb/index.html

*As reported to CDC by U.S. reporting area TB programs as of July 2009. Includes responses from the reporting areas of New York City (NYC) and Puerto Rico (PR).

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Executive Commentary

Executive Commentary

Highlights of 2008 Report

Since 1953, in cooperation with state and local health departments, the Centers for Disease Control and Prevention (CDC) have collected information on each newly reported case of tuberculosis (TB) disease in the United States. Currently, each individual TB case report (Report of Verified Case of Tuberculosis, or RVCT) is submitted electronically to CDC's Division of Tuberculosis Elimination. The following are the highlights of the 2008 report:

1. Updated case counts for each year from 1993 through 2007.
2. Case counts: 12,904 TB cases were reported to CDC from the 50 states and the District of Columbia (DC) for 2008, representing a 2.9% decrease from 2007 (Table 1).
 - Eighteen states reported increased case counts from 2007 (Table 28).
 - California, Texas, New York, and Florida accounted for 49% of the national case total (Table 28).
 - For the fifth consecutive year, Hispanics (29%) exceeded all other racial or ethnic groups with the largest percentage of total cases (Table 2).
 - Asians (26%) surpassed non-Hispanic blacks or African-Americans¹ (25%) as the second largest racial or ethnic group.
 - Blacks or African-Americans born in the United States represented 42% of TB cases in U.S.-born persons and accounted for approximately 17% of the national case total (Tables 17, 18).
 - Asians born outside the United States represented 43% of TB cases in foreign-born persons and accounted for approximately 25% of the national case total (Tables 17, 18).
3. Case rates: In 2008, the TB case rate declined from 4.4 to 4.2 per 100,000 persons, representing a 3.8% decrease from 2007.
 - Eleven states and DC reported rates above the national average (Table 20).
 - Thirty states met the definition for low incidence, or ≤ 3.5 cases per 100,000 population (Table 20).
 - The TB case rate was 2.0 per 100,000 for U.S.-born persons and 20.3 for foreign-born persons (Table 5).
 - Asians continued to have the highest case rate (25.6 per 100,000 persons) among all racial or ethnic groups (Table 2).
4. Burden among the foreign-born: The percentage of cases occurring in foreign-born persons continued to increase and was 59% of the national case total.
 - Foreign-born Hispanics and Asians together represented 80% of TB cases in foreign-born persons, and accounted for 47% of the national case total (Tables 17, 18).
 - In 29 states and the District of Columbia, $\geq 50\%$ of TB cases occurred among foreign-born persons (Table 23).
 - In 14 states, $\geq 70\%$ of TB cases occurred among foreign-born persons (Table 23).
 - The top five countries of origin of foreign-born persons with TB were Mexico, Philippines, Vietnam, India and China (Table 6).
5. Drug resistance: 1.0% of reported cases, compared to 1.1% in 2007, had primary multidrug resistance, which is defined as no previous history of TB disease and resistance to at least isoniazid and rifampin (Table 10).

¹Hispanic and non-Hispanic are ethnicities. All races are non-Hispanic. The category "non-Hispanic blacks or African-Americans" includes U.S. - born and foreign-born persons unless otherwise specified.

Tuberculosis in the United States

In 2008, the number of TB cases reported (12,904) and case rate (4.2 cases per 100,000) both decreased; this represented declines of 2.9% and 3.8%, respectively, compared to 2007. Since the 1992 TB resurgence peak in the United States, the number of TB cases reported annually has decreased by approximately 50%. However, the trend of the declining annual case rate has slowed, from an annual average decline of 5.6% for 1993 through 2002 to an annual average decline of 2.6% for 2003 through 2008 (Table 1).

The proportion of total cases occurring in foreign-born persons has been increasing since 1993. In 2008, 59% of TB cases occurred in foreign-born persons. Foreign-born persons have accounted for the majority of TB cases in the United States every year since 2001. Moreover, the case rate among foreign-born persons in 2008 was approximately 10 times higher than among U.S.-born persons (Table 5).

Tuberculosis deaths decreased by 0.6%, from 648 deaths in 2005 to 644 deaths in 2006, the most recent years for which data are available (Table 1).

Age

Since 1993, TB case rates have declined annually for all age groups. TB case rates vary by well-known factors such as age, race and ethnicity, and country of origin. In 2008, TB case rates declined or remained constant for all age groups. The highest burden of disease continues to be among older adults. In 2008, adults aged 65 years and older had a case rate of 6.4 cases per 100,000, while children aged <14 years had the lowest rate at 1.3 cases per 100,000 (Table 4).

Race and Ethnicity

In 2003, the race and ethnicity category, “non-Hispanic, Asian or Pacific Islander,” was split into “non-Hispanic Asian” and “non-Hispanic Native Hawaiian or Other Pacific Islander.” In

2008, Asians had the highest TB case rate at 25.6 cases per 100,000, which was a slight decrease from 26.7 in 2007. In 2008, Native Hawaiians or Other Pacific Islanders had the second-highest TB case rate at 15.9 cases per 100,000, which is a marked decrease compared to 22.3 cases per 100,000 reported in 2007. Due to low case numbers among Native Hawaiians or Other Pacific Islanders, case rates fluctuate and must be interpreted with caution (Table 2).

Since 1993, TB case rates have declined between 59% and 69% in the following racial and ethnic groups: among Hispanic or Latinos from 19.9 to 8.1 cases per 100,000; among blacks or African-Americans from 28.5 to 8.8 cases per 100,000; and among non-Hispanic whites from 3.6 to 1.1 cases per 100,000. In 2008, the TB case rate for Asians was approximately three times higher than that for Hispanics or blacks or African-Americans (Table 2).

Origin of Birth

Since 1993, the TB case rate among U.S.-born persons has declined annually. In 2008, the TB case rate for U.S.-born persons was 2.0 cases per 100,000 representing a 73% decrease from 7.4 cases per 100,000 in 1993. The TB case rate among foreign-born persons also declined during the same interval, but was less substantial. In 2008, the TB case rate among foreign-born persons was 20.3 cases per 100,000 representing a 40% decrease from 34.0 cases per 100,000 in 1993 (Table 5).

The proportion of TB cases among persons born in the United States also has declined annually since 1993. In 2008, 41% of TB cases were among U.S.-born persons compared to 69% in 1993 (Table 5). In 29 states and the District of Columbia, $\geq 50\%$ of TB cases occurred among foreign-born persons. In 14 states (California, Colorado, Connecticut, Delaware, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Oregon, Rhode Island, Virginia and Washington), $\geq 70\%$ of TB cases occurred among foreign-born persons (Table 23).

Country of Origin and World Region

From 2004 through 2008, the top five countries of origin of foreign-born persons with TB were Mexico, Philippines, Vietnam, India and China (Table 6). However, the changes in the distribution of TB cases by world region of origin reflect the changing immigration patterns among persons settling in the United States². Of the 7,563 TB cases reported among foreign-born persons in 2008, 43% occurred among persons born in the Americas region, and 30% occurred among persons born in the Western Pacific region (Table 19). From 1993 to 2008, the proportion of cases increased among persons born in the Eastern Mediterranean region (3% in 1993 to 4.5% in 2008), the Southeast Asia region (6% in 1993 to 13% in 2008), and the African region (2% in 1993 and 8% in 2008) (Table 19).

Multidrug-Resistant Tuberculosis

Since 1993, when the RVCT was expanded to include drug-susceptibility results, the proportion of patients with primary multidrug-resistant TB (MDR TB), which is defined as no previous history of TB disease and resistance to at least isoniazid and rifampin, has decreased from 2.5% to 1.0% in 2008. Since 1998, the percentage of U.S.-born patients with MDR TB has remained $\leq 0.7\%$. However, of the total number of reported primary MDR TB cases, the proportion occurring in foreign-born persons increased from 25.3% (103 of 407) in 1993 to 76.7% (66 of 86) in 2008 (Table 10).

Extensively Drug-Resistant Tuberculosis

CDC has included an updated case count of extensively drug-resistant TB (XDR TB) cases from 1993 to 2008 in the slide set that accompanies this report. XDR TB is defined as resistance to isoniazid and rifampin plus resistance to any fluoroquinolone and at least one of three injectable second-line anti-TB drugs (i.e., amikacin,

kanamycin, or capreomycin)^{3,4}. Four cases of XDR TB were reported during 2008, compared to two cases in 2007.

Tuberculosis Therapy

The proportion of TB patients prescribed an initial treatment regimen of three or more anti-TB drugs increased from 72% in 1993 to 87% in 2008. The proportion of patients who completed therapy within 1 year increased from 64% in 1993 to 84% in 2006 (the latest year for which complete outcome data are available). The proportion of persons receiving directly observed therapy at least for a portion of the treatment duration also increased from 36% in 1993 to 88% in 2006, the latest year for which complete outcome data are available (Table 12).

Summary

Essential elements for controlling TB in the United States include sufficient resources, interventions targeted to populations at high risk for TB, and collaborative efforts with the international community to reduce the burden of TB globally.

During 1993 through 2008, TB case rates in the United States decreased for U.S.-born and foreign-born persons; however, the decrease among foreign-born persons continues to be less substantial. Despite the decreasing case rate among foreign-born persons, well over half of the TB cases in the United States in 2008 occurred in this population, and the case rate was approximately 10 times higher than among U.S.-born persons. To address the high TB case rates among foreign-born persons, CDC is collaborating with other national and international public health organizations to 1) improve overseas screening of immigrants and refugees by systematically monitoring and evaluating the screening process; 2) strengthen the current notification system that alerts local health departments about

²World Health Organization (WHO). Global Tuberculosis Control 2009: Epidemiology, Strategy, Financing. Geneva, Switzerland: World Health Organization, 2009 (WHO/HTM/TB/2009.411).

³Centers for Disease Control and Prevention (CDC). Notice to readers: revised definition of XDR-TB. *Morbidity and Mortality Weekly Report* 2006; 55:1176.

⁴WHO. Extensively drug-resistant tuberculosis (XDR-TB): recommendations for prevention and control. *Weekly Epidemiol Record* 2006; 81: 430–432.

the arrival of immigrants or refugees who have suspected TB to enhance the evaluation and treatment of such persons; 3) improve coordination of TB control activities between the United States and Mexico to ensure completion of treatment among TB patients who cross the border; 4) test recent arrivals from high-incidence countries for latent TB infection and monitor treatment completion; and 5) survey foreign-born TB patients in the United States to determine opportunities for improving prevention and control interventions. In addition, CDC continues to strengthen collaborations with international partners, including the World Health Organization's Stop TB Partnership, to improve TB control in high-incidence countries.

Accelerating progress in national TB elimination activities will require broader prevention efforts among high-risk population groups such as black or African-American and Asian communities, persons who are incarcerated, persons with excess alcohol and drug use, persons with human immunodeficiency virus infection, and persons living in poverty with limited access to medical care and stable housing.

In addition, low-incidence areas in the United States require continued support to maintain the capacity and expertise needed to respond to future TB cases⁵ especially in light of changing immigration patterns. CDC has updated the comprehensive national action plan to reflect the alignment of CDC priorities with the 2000 Institute of Medicine report on TB and to ensure that priority prevention activities are undertaken with optimal collaboration and coordination among national and international public health partners^{6,7}.

⁵CDC. Progressing toward tuberculosis elimination in low-incidence areas of the United States: Recommendations of the Advisory Council for the Elimination of Tuberculosis. *Morbidity and Mortality Weekly Report* 2002; 51 (No. RR-5): 1–20.

⁶Institute of Medicine. *Ending Neglect: The Elimination of Tuberculosis in the United States*. Washington, DC: National Academy Press, 2000.

⁷CDC. *CDC's Response to Ending Neglect: The Elimination of Tuberculosis from the United States*. Atlanta, GA: U.S. Department of Health and Human Services, CDC, 2000.

Technical Notes

Technical Notes

National Surveillance for Tuberculosis

All reporting areas (i.e., the 50 states, the District of Columbia, New York City, Puerto Rico, and other U.S. jurisdictions in the Pacific and Caribbean) report tuberculosis (TB) cases to CDC using a standard case report form, Report of Verified Case of Tuberculosis (RVCT), through 2008.¹ Reported TB cases are verified according to the TB case definition for public health surveillance used in this document (MMWR 1997;46[No. RR-10]:40–41).

Cases may be verified using the laboratory, the clinical case definition, or a provider diagnosis. A case may be verified by the laboratory case definition either by 1) isolation of *Mycobacterium tuberculosis* complex from a clinical specimen, OR 2) detection of *M. tuberculosis* nucleic acid using an FDA approved nucleic acid amplification test and testing methods, OR 3) demonstration of acid-fast bacilli (AFB) in a clinical specimen when a culture has not been or cannot be obtained.

A case may be verified by the clinical case definition in the presence of ALL of the following clinical criteria: 1) a positive tuberculin skin test (TST) result or interferon gamma release assay (IGRA), 2) other signs and symptoms compatible with TB, such as an abnormal, unstable (worsening or improving) chest radiograph, or clinical evidence of current disease, 3) treatment with two or more antituberculosis medications, and 4) a completed diagnostic evaluation.

When cases of TB are diagnosed but do not meet the clinical case definition, reporting areas also have the option of verifying TB cases based on provider diagnosis. Through 2008, the RVCT did not collect information on results from interferon gamma release assays such as the QuantiFERON-TB Gold test. If this test is performed in lieu of the TST, then the RVCT should reflect that the TST was not performed. Cases without a TST

that are diagnosed by a positive QuantiFERON-TB Gold result are considered to have been confirmed by provider diagnosis. Another example of a provider diagnosis would be in the case of anergic patients with a clinical picture consistent with TB but without laboratory evidence of *M. tuberculosis*.

In January 1993, in conjunction with state and local health departments, CDC implemented an expanded surveillance system for TB that would collect additional data to better monitor and target groups at risk for TB disease, to estimate and follow the extent of drug-resistant TB, and to evaluate outcomes of TB cases. The RVCT form for reporting TB cases was revised to collect information on occupation, the initial drug regimen, human immunodeficiency virus (HIV) test results, history of substance abuse and homelessness, and residence in correctional or long term-care facilities at the time of diagnosis. RVCT Follow Up Report-1 was added to collect drug susceptibility results for the initial *M. tuberculosis* isolate from patients with culture-positive disease.

To evaluate the outcomes of TB therapy, RVCT Follow Up Report-2 was added to collect information on the reason and date therapy was stopped, the type of health care provider, sputum culture conversion, the use of directly observed therapy (DOT), and the results of drug-susceptibility testing for the final *M. tuberculosis* isolate from patients with culture-positive disease.

Since 1993, RVCT data have been reported to CDC using software specifically developed for expanded TB surveillance (i.e., SURVS-TB, 1993–1997; TIMS, 1998–2008). The instructions for completing the RVCT forms and the definitions for all data items were included in the software user's guide. The summary data presented in this publication for 2008 (and for 2006, Tables 39–44) and the trend data for 1993–2008 (Tables 1–14) were received at CDC by May 20, 2009.

¹Other U.S. jurisdictions include American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, the Republic of Palau, and U.S. Virgin Islands.

Completion of Tuberculosis Therapy

Tables 12, 41, 43, and 44 present rates of completion of TB therapy (COT). Data collected by RVCT Follow Up Report-2 on date and reason therapy stopped (e.g., patient completed therapy, moved, was lost) were used to calculate rates of COT. Cases were stratified by the indicated length of therapy, based on American Thoracic Society/CDC/Infectious Diseases Society of America treatment guidelines² in effect during the period covered, and the patient's initial drug susceptibility test results, age, and site of disease. The adequacy of the treatment regimen (e.g., the sufficiency of the duration of therapy, the appropriateness of the prescribed TB drugs) was not evaluated in this analysis. Acquired drug resistance during therapy with the need for a longer duration of therapy was also not considered in this analysis.

In Table 41, the first column shows the total number of cases reported during 2006. The remaining columns are grouped under three headings: therapy of 1 year or less indicated, therapy greater than 1 year indicated, and overall. Patients eligible to complete therapy within 1 year had to have been alive at diagnosis and initiated therapy with at least one drug. Eligible patients did not have rifampin resistance, did not die during therapy, and did not have meningeal tuberculosis, regardless of age. In addition, tuberculosis patients under the age of 15 years were not eligible to complete therapy within 1 year if they had disseminated disease (disseminated disease is defined as miliary tuberculosis and/or a positive tuberculosis blood culture). Patients with culture-negative disease, those with an unknown culture status, and those with culture-positive disease but unknown initial drug-susceptibility test results were included under the category of 1 year or less of therapy indicated. Table 12 presents data only for cases where therapy of 1 year or less was indicated.

In Table 41, each group under an indicated length of therapy has an initial column showing

the number of cases in persons who were alive at diagnosis and prescribed an initial regimen of one or more drugs, and who did not die during therapy. This number was used as the denominator in COT rate calculations.

COT rates, shown as percentages, were only calculated for areas reporting reason therapy stopped for at least 90% of cases shown in the overall column. For the group with an indicated length of therapy of 1 year or less, rates are shown for both COT in 1 year or less (COT ≤ 1 year) and for COT, regardless of duration (i.e., duration of therapy ≤ 1 year, >1 year, or unknown). For COT ≤ 1 year, the numerator included only those patients completing therapy in ≤ 366 days (based on the dates therapy started and stopped). Patients with missing dates were classified as "treatment not completed" for this calculation.

Rates of COT, regardless of duration, were calculated by dividing the number of patients reported as having completed therapy by the number of total eligible patients. Patients with an outcome other than completed therapy (i.e., moved, lost, refused treatment, and other) were classified as "treatment not completed." Patients with an unknown outcome were also classified as "treatment not completed." For the remaining two groups of indicated therapy length (greater than 1 year and overall), only rates of COT, regardless of duration, are presented. Table 12 provides rates for COT ≤ 1 year and for COT, regardless of duration, only for the group with an indicated therapy of 1 year or less. Table 43 presents rates of COT by ethnicity and non-Hispanic race and by state for those in whom therapy 1 year or less was indicated.

Site of TB Disease

Miliary disease is classified as both an extrapulmonary and a pulmonary form of TB (Tables 8, 9, 26, 27, and 47). In publications prior to 1997, miliary disease was classified as extrapulmonary

²CDC. Treatment of Tuberculosis, American Thoracic Society, CDC, and the Infectious Diseases Society of America. MMWR 2003;52(No.RR-11):1-77.

TB unless pulmonary disease was reported as the major site of TB disease.

Reporting of HIV Status

Table 37 shows information on HIV status for persons with TB aged 25–44 years, the age group in which 71% of AIDS cases occur (CDC. HIV/AIDS Surveillance Report 2007; 15). The information on HIV status for TB cases reported in 2008 is incomplete. Reasons for incomplete reporting of HIV test results to the national TB surveillance system include concerns about confidentiality, which may limit the exchange of data between TB and HIV/AIDS programs; laws and regulations in certain states and local jurisdictions that have been interpreted as prohibiting the HIV/AIDS program from sharing the HIV status of TB patients with the TB program, or from reporting patients with TB and AIDS to the TB program; and reluctance by health care providers to report HIV test results to the TB surveillance program staff. In addition, health care providers may not offer HIV counseling, testing, and referral to some TB patients because of a lack of resources or of appropriately trained staff, or due to the perception that selected patients (e.g., foreign-born persons) are not at risk for HIV infection.

Data on the HIV-infection status of reported TB cases should be interpreted with caution. These data are not representative of all TB patients with HIV infection. HIV testing is performed after a patient receives counseling and gives informed consent. Since testing is voluntary, some TB patients may decline HIV testing. TB patients who are tested anonymously may choose not to share the results of HIV testing with their health care provider. TB patients managed in the private sector may receive confidential HIV testing, but results may not be reported to the TB program in the health department. In addition, many factors may influence HIV testing of TB patients, including the extent to which testing is targeted or routinely offered to specific groups (e.g., 25- to 44-year-old males, injecting drug

users, homeless persons), and the availability of and access to HIV testing services. These data may overrepresent or underrepresent the proportion of TB patients known to be HIV infected in a reporting area.

Tabulation and Presentation of TB Data

This report primarily presents summary data for TB cases reported to CDC in 2008. Data from the RVCT Follow Up Report-2 (i.e., completion of therapy, use of directly observed therapy, and type of health care provider) are presented for cases reported in 2006. In addition, trend data are presented in Tables 1 through 14. TB cases are tabulated by the year in which the reporting area verified that the patient had TB and included the patient in its official annual TB case count. Previous to 2007, TB case counts for preceding years were not updated. The current summary reflects updated information on the numbers of cases of confirmed TB for each year from 1993 to 2007. Therefore, case counts for these years differ from those reported in the annual summaries published before 2007. Totals for the United States only include data from the 50 states, the District of Columbia, and New York City. Age group tabulations are based on the patient's age in the month and year the patient was reported to the health department as a suspected TB case. State or metropolitan area data tabulations are based on the patient's residence at diagnosis of TB (see Appendix B: "Recommendations for Counting Reported Tuberculosis Cases").

Tables 46 through 50 present data by metropolitan statistical areas (MSAs) with an estimated 2008 population of 500,000 or more. MSAs are defined by the federal Office of Management and Budget, and the definitions effective as of November 2007 were used for this publication (<http://www.whitehouse.gov/omb/bulletins/fy2008/b08-01.pdf>). On June 6, 2003, the OMB announced new MSA definitions based on Census 2000 data and the information has been updated annually. Some MSA's added or dropped counties and some MSA's merged. The

MSA definitions apply to all areas except the six New England states; for these states, the New England County Metropolitan Areas (NECMAs) are used. MSAs are named for a central city in the MSA or NECMA, may include several cities and counties, and may cross state boundaries. For example, the TB cases and case rates presented for the District of Columbia in Table 20 include only persons residing within the geographic boundaries of the District. However, the TB cases and case rates for the Washington, D.C., MSA (Table 46) include persons residing within the several counties in the metropolitan area, including counties in Maryland, Virginia, and West Virginia.

Rates

Rates are expressed as the number of cases reported each calendar year per 100,000 population. Population denominators used in calculating TB rates were based on official census and midyear (July 1) postcensal estimates from the U.S. Census Bureau. Specifically, in Tables 1 and 20, the U.S. total populations for 2000 to 2008 were obtained from the Annual Estimates of the Population for the United States and States, and for Puerto Rico (July 1, 2000–July 1, 2008).³ In 2003, two modifications were made to the RVCT form: 1) entries for multiple race (two or more races reported for a person) were allowed, and 2) the previous category of Asian/Pacific Islander was divided into “Asian” and “Native Hawaiian or Other Pacific Islander.” To calculate rates in Tables 2 and 3, denominators for 2000 to 2008 were obtained from the Annual Estimates of the Population by Sex, Race, and Hispanic or Latino Origin for the United States: April 1, 2000, to July 1, 2008.⁴ To calculate rates for Table 4, denominators were obtained from the Annual Estimates of the Population by Sex and Five-Year Age Groups for the United States: April 1, 2000, to July 1, 2008.⁵ Denominators for computing 2008 rates in Table 16 were

obtained from U.S. Census Bureau Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin: July 1, 2008.⁶ In 2004, the method for calculating the annual percentage change in the TB case rate was modified. Unrounded figures are applied to calculate the percentage change in the case rate.

In Table 5, the populations for U.S.-born and foreign-born persons for 1993 and 1994 were obtained from Quarterly Estimates of the United States Foreign-born and Native Resident Populations: April 1, 1990, to July 1, 1999.⁷ Denominators for computing the 1995–2008 rates were based on extrapolations from the U.S. Census Current Population Survey (March Supplement).

Mortality Data

Official TB mortality statistics for the United States are compiled by the National Center for Health Statistics (NCHS), CDC. The annual mortality rate is calculated as the number of deaths due to TB in that year, divided by the estimated population for the year, multiplied by 100,000 (Table 1). The number of deaths for 2006 (preliminary) was obtained from the National Center for Health Statistics, National Vital Statistics Report, Vol. 56, No. 16, June 11, 2008. The numbers of deaths for years after 2006 were not available at the time of this publication.

³ <http://www.census.gov/popest/states/tables/NST-EST2008-01.xls>

⁴ <http://www.census.gov/popest/national/asrh/NC-EST2008/NC-EST2008-03.xls>

⁵ <http://www.census.gov/popest/national/asrh/NC-EST2008/NC-EST2008-01.xls>

⁶ <http://www.census.gov/popest/national/asrh/files/NC-EST2008-ALLDATA-R-File16.csv>

⁷ <http://www.census.gov/popest/archives/1990s/nat-nativity-sum.txt>

Morbidity Trend Tables

United States

Table 1. Tuberculosis Cases, Case Rates per 100,000 Population, Deaths, and Death Rates per 100,000 Population, and Percent Change: United States, 1953–2008

Year	Tuberculosis Cases				Tuberculosis Deaths			
	Number	Rate	Percent Change		Number ¹	Rate ¹	Percent Change	
			Number	Rate			Number	Rate
1953	84,304	52.6	--	--	19,707	12.4	--	--
1954	79,775	48.9	-5.4	-7.0	16,527	10.2	-16.1	-17.7
1955	77,368	46.6	-3.0	-4.7	15,016	9.1	-9.1	-10.8
1956	69,895	41.4	-9.7	-11.1	14,137	8.4	-5.9	-7.7
1957	67,149	39.0	-3.9	-5.8	13,390	7.8	-5.3	-7.1
1958	63,534	36.3	-5.4	-6.9	12,417	7.1	-7.3	-9.0
1959	57,535	32.4	-9.4	-10.7	11,474	6.5	-7.6	-8.5
1960	55,494	30.7	-3.5	-5.2	10,866	6.0	-5.3	-7.7
1961	53,726	29.2	-3.2	-4.9	9,938	5.4	-8.5	-10.0
1962	53,315	28.6	-0.8	-2.1	9,506	5.1	-4.3	-5.6
1963	54,042	28.6	1.4	0.0	9,311	4.9	-2.1	-3.9
1964	50,874	26.5	-5.9	-7.3	8,303	4.3	-10.8	-12.2
1965	49,016	25.2	-3.7	-4.9	7,934	4.1	-4.4	-4.7
1966	47,767	24.3	-2.5	-3.6	7,625	3.9	-3.9	-4.9
1967	45,647	23.0	-4.4	-5.3	6,901	3.5	-9.5	-10.3
1968	42,623	21.2	-6.6	-7.8	6,292	3.1	-8.8	-11.4
1969	39,120	19.3	-8.2	-9.0	5,567	2.8	-11.5	-9.7
1970	37,137	18.1	-5.1	-6.2	5,217	2.6	-6.3	-7.1
1971	35,217	17.0	-5.2	-6.1	4,501	2.2	-13.7	-15.4
1972	32,882	15.7	-6.6	-7.6	4,376	2.1	-2.8	-4.5
1973	30,998	14.6	-5.7	-7.0	3,875	1.8	-11.4	-14.5
1974	30,122	14.1	-2.8	-3.4	3,513	1.7	-9.3	-5.6
1975	33,989	15.7	--	--	3,333	1.6	-5.1	-5.9
1976	32,105	14.7	-5.5	-6.4	3,130	1.5	-6.1	-6.3
1977	30,145	13.7	-6.1	-6.8	2,968	1.4	-5.2	-6.7
1978	28,521	12.8	-5.4	-6.6	2,914	1.3	-1.8	-7.1
1979	27,669	12.3	-3.0	-3.9	2,007	0.9	-31.1	-30.8
1980	27,749	12.2	0.3	-0.7	1,978	0.9	-1.4	0.0
1981	27,373	11.9	-1.4	-2.3	1,937	0.8	-2.1	-11.1
1982	25,520	11.0	-6.8	-7.7	1,807	0.8	-6.7	0.0
1983	23,846	10.2	-6.6	-7.4	1,779	0.8	-1.5	0.0
1984	22,255	9.4	-6.7	-7.5	1,729	0.7	-2.8	-12.5
1985	22,201	9.3	-0.2	-1.1	1,752	0.7	1.3	0.0
1986	22,768	9.5	2.6	1.6	1,782	0.7	1.7	0.0
1987	22,517	9.3	-1.1	-2.0	1,755	0.7	-1.5	0.0
1988	22,436	9.2	-0.4	-1.3	1,921	0.8	9.5	14.3
1989	23,495	9.5	4.7	3.7	1,970	0.8	2.6	0.0
1990	25,701	10.3	9.4	8.2	1,810	0.7	-8.1	-12.5
1991	26,283	10.4	2.3	0.9	1,713	0.7	-5.4	0.0
1992	26,673	10.4	1.5	0.1	1,705	0.7	-0.5	0.0
1993	25,107	9.7	-5.9	-7.1	1,631	0.6	-4.3	-14.3
1994	24,205	9.2	-3.6	-4.8	1,478	0.6	-9.4	0.0
1995	22,728	8.5	-6.1	-7.2	1,336	0.5	-9.6	-16.7
1996	21,210	7.9	-6.7	-7.8	1,202	0.5	-10.0	0.0
1997	19,751	7.2	-6.9	-8.0	1,166	0.4	-3.0	-20.0
1998	18,287	6.6	-7.4	-8.5	1,112	0.4	-4.6	0.0
1999	17,501	6.3	-4.3	-5.4	930	0.3	-16.4	-25.0
2000	16,310	5.8	-6.8	-7.8	776	0.3	-16.6	0.0
2001	15,945	5.6	-2.2	-3.2	764	0.3	-1.6	0.0
2002	15,056	5.2	-5.6	-6.5	784	0.3	2.6	0.0
2003	14,836	5.1	-1.5	-2.3	711	0.2	-10.2	-33.3
2004	14,500	5.0	-2.3	-3.2	662	0.2	-6.9	0.0
2005	14,067	4.8	-3.0	-3.9	648	0.2	-2.1	0.0
2006	13,727	4.6	-2.4	-3.3	644	0.2	-0.6	0.0
2007	13,288	4.4	-3.2	-4.1	...	...	...	...
2008	12,904	4.2	-2.9	-3.8	...	...	...	...

¹ Official tuberculosis mortality statistics were compiled by the National Center for Health Statistics, CDC, National Vital Statistics Reports. TB mortality statistics were unavailable at time of publication for years after 2006.

² The large decrease in death rate in 1979 occurred because late effects of tuberculosis (e.g., bronchiectasis or fibrosis) and pleurisy with effusion (without mention of cause) are no longer included in tuberculosis deaths.

Percent change in tuberculosis death rates is calculated with rounded figures. See Technical Notes (page 9).

Note: 1993 to 2008 tuberculosis case counts and rates updated as of May 20, 2009, using Bridged-Race 1990–1999 Intercensal Population Estimates for 1990–1999 (ftp://ftp.cdc.gov/pub/health_statistics/nchs/datasets/nvss/bridgepop/documentationbridged-intercena1.doc) (accessed July 29, 2009) and Annual Estimates of the Population for the United States and States, and for Puerto Rico (July 1, 2000– July 1, 2008) (www.census.gov/popest/states/tables/NST-EST2008-01.xls) (accessed July 29, 2009). Percentage change results reported to one decimal. Ellipses indicate data not available. Case data after 1974 are not comparable to prior years due to changes in the surveillance case definition that became effective in 1975. See Surveillance Slides #2 and #3.

Table 2. Tuberculosis Cases, Percentages, and Case Rates per 100,000 Population by Hispanic Ethnicity and non-Hispanic Race: United States, 1993–2008

Year	Total Cases	Hispanic or Latino ¹		Non-Hispanic										White		Unknown or Missing ⁶	
		Multiple Race ²		American Indian or Alaska Native		Asian ³		Asian or Pacific Islander ⁴		Black or African American		Native Hawaiian or Other Pacific Islander ⁵		Rate		No. (%)	
		No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate
1993	25107	5140	(20) 19.9	271	(1) 13.9	...	...	3700	(15) 44.1	8942	(36) 28.5	...	...	6889	(27) 3.6	165	(1)
1994	24205	5017	(21) 18.6	327	(1) 16.4	...	...	3843	(16) 43.8	8370	(35) 26.2	...	...	6561	(27) 3.4	87	(0)
1995	22728	4834	(21) 17.2	320	(1) 15.7	...	...	4001	(18) 43.5	7550	(33) 23.2	...	...	5960	(26) 3.1	63	(0)
1996	21210	4492	(21) 15.2	286	(1) 13.6	...	...	3814	(18) 39.7	7092	(33) 21.5	...	...	5484	(26) 2.8	42	(0)
1997	19751	4218	(21) 13.7	264	(1) 12.3	...	...	3827	(19) 38.1	6599	(33) 19.6	...	...	4821	(24) 2.5	22	(0)
1998	18287	4090	(22) 12.6	254	(1) 11.5	...	...	3639	(20) 34.7	5816	(32) 17.0	...	...	4473	(24) 2.3	15	(0)
1999	17501	3864	(22) 11.4	243	(1) 10.7	...	...	3607	(21) 32.9	5545	(32) 16.0	...	...	4216	(24) 2.1	26	(0)
2000	16310	3803	(23) 10.7	232	(1) 11.0	...	...	3462	(21) 32.0	5146	(32) 15.0	...	...	3637	(22) 1.9	30	(0)
2001	15945	4009	(25) 10.8	227	(1) 10.6	...	...	3555	(22) 31.7	4772	(30) 13.7	...	...	3338	(21) 1.7	44	(0)
2002	15056	3974	(26) 10.3	180	(1) 8.3	...	...	3301	(22) 28.5	4319	(29) 12.3	...	...	2959	(20) 1.5	323	(2)
2003	14836	4105	(28) 10.3	178	(1) 8.2	3460	(23) 29.9	...	...	4161	(28) 11.8	64	(0) 16.3	2792	(19) 1.4	39	(0)
2004	14500	4182	(29) 10.2	157	(1) 7.1	3335	(23) 28.1	...	...	4071	(28) 11.4	63	(0) 15.7	2630	(18) 1.3	27	(0)
2005	14067	4042	(29) 9.5	152	(1) 6.8	3205	(23) 26.2	...	...	3959	(28) 11.0	54	(0) 13.2	2567	(18) 1.3	43	(0)
2006	13727	4051	(30) 9.2	164	(1) 7.2	3293	(24) 26.2	...	...	3726	(27) 10.2	52	(0) 12.4	2384	(17) 1.2	17	(0)
2007	13288	3873	(29) 8.5	136	(1) 5.9	3441	(26) 26.7	...	...	3468	(26) 9.4	95	(1) 22.3	2211	(17) 1.1	41	(0)
2008	12904	3798	(29) 8.1	139	(1) 6.0	3391	(26) 25.6	...	...	3273	(25) 8.8	69	(1) 15.9	2142	(17) 1.1	50	(0)

¹Persons of Hispanic or Latino ethnicity may be of any race or multiple race.

²Indicates two or more races reported for a person. Category first reported in 2003. Does not include persons of Hispanic or Latino origin.

³Asian race first reported in 2003.

⁴Asian or Pacific Islander race first reported in 2003.

⁵Native Hawaiian or Other Pacific Islander race first reported in 2003.

⁶The higher count for unknown or missing race results for 2002 reflect the impact of the transitional period of incorporating new race definitions for Asian, Native Hawaiian, and Multiple Race in 2003.

Note: Previously published rates for 1993–1999 have been updated using Bridged-Race 1990–1999 Intercensal Population Estimates for 1993–1999 (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>) (accessed June 22, 2009). Denominators for computing 2000–2008 case rates were obtained from the Annual Estimates of the Population by Sex, Race, and Hispanic or Latino Origin for the United States: April 1, 2000, to July 1, 2008 (<http://www.census.gov/popest/national/asrh/NC-EST2008/NC-EST2008-03.xls>) (accessed June 22, 2009).

Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) do not include persons of Hispanic ethnicity or multiple race.

Data for all years updated through May 20, 2009.

Ellipses indicate data not available.

See Technical Notes (page 9).

See Surveillance Slide #8.

Zero % (0) denotes <0.5%.

Table 3. Tuberculosis Cases, Percentages, and Case Rates per 100,000 Population by Race Only: United States, 1993–2008

Year	Total Cases	Multiple Race ¹		American Indian or Alaska Native		Asian ²		Asian or Pacific Islander ³		Black or African American		Native Hawaiian or Other Pacific Islander ⁴		White		Unknown or Missing ⁵	
		No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%) Rate	No.	(%)
1993	25107	...	...	275	(1) 12.1	...	...	3743	(15) 42.5	9132	(36) 28.0	...	...	11897	(47) 5.5	60	(0)
1994	24205	...	...	336	(1) 14.2	...	...	3870	(16) 42.1	8607	(36) 25.9	...	...	11326	(47) 5.2	66	(0)
1995	22728	...	...	328	(1) 13.4	...	...	4027	(18) 41.9	7755	(34) 22.9	...	...	10549	(46) 4.8	69	(0)
1996	21210	...	...	292	(1) 11.5	...	...	3846	(18) 38.4	7286	(34) 21.2	...	...	9754	(46) 4.4	32	(0)
1997	19751	...	...	277	(1) 10.5	...	...	3864	(20) 36.9	6785	(34) 19.4	...	...	8808	(45) 3.9	17	(0)
1998	18287	...	...	263	(1) 9.6	...	...	3674	(20) 33.8	5955	(33) 16.7	...	...	8376	(46) 3.7	19	(0)
1999	17501	...	...	254	(1) 9.0	...	...	3643	(21) 32.1	5656	(32) 15.6	...	...	7909	(45) 3.5	39	(0)
2000	16310	...	...	241	(1) 9.0	...	...	3496	(21) 31.3	5266	(32) 14.7	...	...	7279	(45) 3.2	28	(0)
2001	15945	...	...	240	(2) 8.8	...	...	3591	(23) 31.1	4871	(31) 13.4	...	...	7183	(45) 3.1	60	(0)
2002	15056	...	...	198	(1) 7.1	...	...	3319	(22) 27.8	4405	(29) 12.0	...	...	6754	(45) 2.9	379	(3)
2003	14836	49	(0) 1.1	188	(1) 6.7	3507	(24) 29.7	...	...	4249	(29) 11.5	66	(0) 13.2	6750	(45) 2.9	27	(0)
2004	14500	44	(0) 1.0	165	(1) 5.8	3367	(23) 27.7	...	...	4185	(29) 11.2	64	(0) 12.5	6645	(46) 2.8	30	(0)
2005	14067	53	(0) 1.1	170	(1) 5.8	3250	(23) 26.0	...	...	4077	(29) 10.8	57	(0) 10.9	6431	(46) 2.7	29	(0)
2006	13727	44	(0) 0.9	194	(1) 6.5	3319	(24) 25.8	...	...	3850	(28) 10.1	59	(0) 11.0	6234	(45) 2.6	27	(0)
2007	13288	29	(0) 0.6	177	(1) 5.8	3457	(26) 26.2	...	...	3616	(27) 9.4	98	(1) 17.8	5868	(44) 2.4	43	(0)
2008	12904	47	(0) 0.9	166	(1) 5.4	3414	(26) 25.2	...	...	3405	(26) 8.7	78	(1) 13.9	5730	(44) 2.4	64	(0)

¹Indicates two or more races reported for a person. Category first reported in 2003.

²Asian race first reported in 2003.

³Asian or Pacific Islander race reported 1993–2002.

⁴Native Hawaiian or Other Pacific Islander race first reported in 2003.

⁵The higher count for unknown or missing race for 2002 reflect the impact of the transitional period of incorporating new race definitions for Asian, Native Hawaiian, and Multiple Race in 2003.

Note: Previously published rates for 1993–1999 have been updated using Bridged-Race 1990–1999 Intercensal Population Estimates for 1993–1999 (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>) (accessed June 22, 2009). Denominators for computing 2000–2008 case rates were obtained from the Annual Estimates of the Population by Sex, Race, and Hispanic or Latino Origin for the United States: April 1, 2000, to July 1, 2008 (<http://www.census.gov/popest/national/asrh/NC-EST2008-03.xls>) (accessed June 22, 2009).

Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) do not include persons of Hispanic ethnicity or multiple race.

Data for all years updated through May 20, 2009.

Ellipses indicate data not available.

See Technical Notes (page 9).

See Surveillance Slide #10.

Zero % (0) denotes <0.5%.

Table 4. Tuberculosis Cases, Percentages, and Case Rates per 100,000 Population by Age Group: United States, 1993–2008

Year	Total Cases	0–14			15–24			25–44			45–64			≥65			Unk. ¹	
		No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)
1993	25107	1661	7	2.9	1822	7	5.0	9588	38	11.5	6197	25	12.4	5820	23	17.7	19	0
1994	24205	1659	7	2.9	1833	8	5.0	9043	37	10.7	6125	25	11.9	5539	23	16.6	6	0
1995	22728	1536	7	2.6	1698	7	4.6	8201	36	9.7	5960	26	11.3	5328	23	15.8	5	0
1996	21210	1356	6	2.3	1637	8	4.4	7564	36	8.9	5572	26	10.2	5076	24	14.9	5	0
1997	19751	1251	6	2.1	1675	8	4.5	6884	35	8.0	5277	27	9.4	4663	24	13.6	1	0
1998	18287	1077	6	1.8	1543	8	4.1	6335	35	7.4	4954	27	8.5	4377	24	12.6	1	0
1999	17501	1038	6	1.7	1518	9	3.9	6063	35	7.1	4859	28	8.1	4020	23	11.6	3	0
2000	16310	965	6	1.6	1618	10	4.1	5576	34	6.6	4636	28	7.4	3514	22	10.0	1	0
2001	15945	929	6	1.5	1597	10	4.0	5609	35	6.6	4515	28	7.0	3293	21	9.3	2	0
2002	15056	944	6	1.6	1497	10	3.7	5288	35	6.3	4182	28	6.3	3141	21	8.8	4	0
2003	14836	912	6	1.5	1573	11	3.8	5072	34	6.0	4283	29	6.2	2993	20	8.3	3	0
2004	14500	954	7	1.6	1602	11	3.9	4938	34	5.9	4194	29	5.9	2811	19	7.7	1	0
2005	14067	857	6	1.4	1542	11	3.7	4736	34	5.7	4123	29	5.7	2809	20	7.6	0	0
2006	13727	800	6	1.3	1531	11	3.6	4691	34	5.6	4042	29	5.4	2662	19	7.1	1	0
2007	13288	777	6	1.3	1581	12	3.7	4316	32	5.2	4040	30	5.3	2573	19	6.8	1	0
2008	12904	786	6	1.3	1440	11	3.4	4242	33	5.1	3935	30	5.0	2500	19	6.4	1	0

¹Includes unknown and missing.

Note: Previously published rates for 1993–1999 have been updated using Bridged-Race 1990–1999 Intercensal Population Estimates (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>) (accessed June 22, 2009). Denominators for computing 2000–2008 case rates were obtained from the Annual Estimates of the Population by Sex and Five-Year Age Groups for the United States: April 1, 2000, to July 1, 2008 (<http://www.census.gov/popest/national/asrh/NC-EST2008/NC-EST200-03.xls>) (accessed June 22, 2009).

Data for all years updated through May 20, 2009.

See Technical Notes (page 9).

Zero % (0) denotes <0.5%.

See Surveillance Slides #5 and #6.

Table 5. Tuberculosis Cases, Percentages, and Case Rates per 100,000 Population by Origin of Birth: United States, 1993–2008

Year	Total Cases	U.S.-born Persons			Foreign-born Persons ¹			Unknown or Missing	
		No.	(%)	Rate	No.	(%)	Rate	No.	(%)
1993	25107	17422	(69)	7.4	7403	(29)	34.0	282	(1)
1994	24205	16171	(67)	6.8	7741	(32)	34.4	293	(1)
1995	22728	14647	(64)	6.1	7987	(35)	34.8	94	(0)
1996	21210	13316	(63)	5.6	7725	(36)	31.5	169	(1)
1997	19751	11879	(60)	4.9	7742	(39)	30.0	130	(1)
1998	18287	10632	(58)	4.4	7599	(42)	28.9	56	(0)
1999	17501	9806	(56)	4.0	7602	(43)	29.2	93	(1)
2000	16310	8649	(53)	3.5	7619	(47)	27.3	42	(0)
2001	15945	7870	(49)	3.2	8010	(50)	26.9	65	(0)
2002	15056	7281	(48)	2.9	7719	(51)	25.4	56	(0)
2003	14836	6863	(46)	2.7	7928	(53)	23.5	45	(0)
2004	14500	6633	(46)	2.6	7844	(54)	23.2	23	(0)
2005	14067	6311	(45)	2.5	7727	(55)	22.4	29	(0)
2006	13727	5880	(43)	2.3	7816	(57)	22.0	31	(0)
2007	13288	5498	(41)	2.1	7757	(58)	20.8	33	(0)
2008	12904	5283	(41)	2.0	7563	(59)	20.3	58	(0)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

Note: Denominators for computing rates for years 1993–1994 were obtained from Quarterly Estimates of the United States Foreign-born and Native Resident Populations: April 1, 1990–July 1, 1999, located at <http://www.census.gov/population/estimates/nation/nativity/ftab001.txt> (accessed June 22, 2009). Denominators for computing the 1995–2008 rates are based on the U.S. Census Bureau, Current Population Survey (March Supplement).

Data for all years updated through May 20, 2009.

See Technical Notes (page 9).

Zero % (0) denotes <0.5%.

See Surveillance Slides #11, #12, #15, and #16.

Table 6. Tuberculosis Cases and Percentages Among Foreign-born Persons¹ by the Top 30 Countries² of Origin of Birth: United States, 2004–2008

Country of Origin	Year									
	2008		2007		2006		2005		2004	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Total Cases	7563	(100)	7757	(100)	7816	(100)	7727	(100)	7844	(100)
Mexico	1,752	(23)	1,850	(24)	1,932	(25)	1,960	(25)	2,003	(26)
Philippines	855	(11)	952	(12)	861	(11)	829	(11)	830	(11)
Vietnam	582	(8)	572	(7)	629	(8)	576	(7)	622	(8)
India	596	(8)	626	(8)	548	(7)	562	(7)	561	(7)
China	398	(5)	386	(5)	371	(5)	397	(5)	351	(4)
Guatemala	247	(3)	248	(3)	230	(3)	211	(3)	190	(2)
Haiti	237	(3)	175	(2)	210	(3)	241	(3)	247	(3)
Korea, Republic of	150	(2)	155	(2)	203	(3)	176	(2)	219	(3)
Ethiopia	180	(2)	179	(2)	203	(3)	151	(2)	170	(2)
Honduras	192	(3)	181	(2)	164	(2)	165	(2)	112	(1)
Somalia	150	(2)	177	(2)	196	(3)	148	(2)	140	(2)
Peru	144	(2)	140	(2)	160	(2)	154	(2)	159	(2)
El Salvador	145	(2)	154	(2)	144	(2)	143	(2)	124	(2)
Ecuador	113	(1)	115	(1)	117	(2)	156	(2)	158	(2)
Cambodia	75	(1)	95	(1)	98	(1)	106	(1)	107	(1)
Dominican Republic	87	(1)	89	(1)	111	(1)	76	(1)	104	(1)
Pakistan	89	(1)	79	(1)	79	(1)	78	(1)	89	(1)
Lao, PDR	65	(1)	79	(1)	61	(1)	84	(1)	89	(1)
Kenya	81	(1)	68	(1)	75	(1)	66	(1)	68	(1)
Burma	112	(1)	65	(1)	41	(1)	39	(1)	41	(1)
Thailand	59	(1)	47	(1)	55	(1)	71	(1)	58	(1)
Liberia	35	(0)	47	(1)	52	(1)	64	(1)	56	(1)
Nepal	70	(1)	53	(1)	46	(1)	33	(0)	48	(1)
Columbia	43	(1)	56	(1)	45	(1)	37	(0)	68	(1)
Cuba	41	(1)	41	(1)	42	(1)	55	(1)	56	(1)
Bangladesh	55	(1)	56	(1)	41	(1)	34	(0)	38	(0)
Nigeria	49	(0)	43	(1)	38	(1)	37	(1)	52	(0)
Indonesia	28	(1)	52	(1)	43	(0)	57	(0)	37	(1)
Russia	37	(0)	41	(1)	48	(1)	43	(1)	28	(0)
Taiwan	32	(0)	38	(0)	38	(0)	37	(0)	29	(0)
All Others ³	864	(11)	898	(12)	935	(12)	941	(12)	990	(13)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

²The top 30 countries were selected based on their ranked 5-year average number of TB cases.

³Includes Not Specified for Country of Origin. Excludes missing.

Note: Zero (0) denotes <0.5%.

Data for all years updated through May 20, 2009.

Table 7. Tuberculosis Cases and Percentages Among Adult¹ Foreign-born Persons² by Country of Origin and Years in the United States Before TB Diagnosis, Top 30 Countries: United States, 2008 and 1998

Country of Origin ³	2008						1998					
	No. of Years in U.S. ⁴						No. of Years in U.S. ⁴					
	Total Cases		<1 Year		1–4 Years		<1 Year		1–4 Years		≥5 Years	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Country of Origin ³	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Mexico	1718	206 (13)	311 (18)	1001 (58)	200 (12)	1669	221 (13)	286 (17)	853 (51)	309 (19)		
Philippines	838	138 (16)	125 (15)	475 (57)	100 (12)	952	213 (22)	157 (16)	433 (45)	149 (16)		
India	590	118 (20)	139 (24)	245 (42)	88 (15)	744	91 (12)	144 (19)	384 (52)	125 (17)		
Viet Nam	575	79 (14)	60 (10)	341 (59)	95 (17)	499	124 (25)	143 (29)	162 (32)	70 (14)		
China	394	62 (16)	60 (15)	241 (61)	31 (8)	365	55 (15)	60 (16)	209 (57)	41 (11)		
Guatemala	242	42 (17)	95 (39)	78 (32)	27 (11)	290	25 (9)	61 (21)	149 (51)	55 (19)		
Haiti	224	39 (17)	52 (23)	123 (55)	10 (4)	221	17 (8)	41 (19)	119 (54)	44 (20)		
Honduras	191	30 (16)	73 (38)	73 (38)	15 (8)	143	20 (14)	28 (20)	78 (55)	17 (12)		
Ethiopia	164	48 (29)	61 (37)	46 (28)	9 (5)	130	30 (23)	45 (35)	46 (35)	9 (7)		
Korea, Rep of	148	16 (11)	13 (9)	92 (62)	27 (18)	128	17 (13)	33 (26)	59 (46)	19 (15)		
El Salvador	145	20 (14)	37 (26)	77 (53)	11 (8)	126	13 (10)	25 (20)	71 (56)	17 (13)		
Peru	143	22 (15)	27 (19)	80 (56)	14 (10)	125	25 (20)	28 (22)	53 (42)	19 (15)		
Somalia	139	19 (14)	62 (45)	49 (35)	9 (6)	119	18 (15)	40 (34)	53 (45)	8 (7)		
Ecuador	113	14 (12)	33 (29)	54 (48)	12 (11)	110	3 (3)	6 (5)	70 (64)	31 (28)		
Burma	97	64 (66)	10 (10)	19 (20)	4 (4)	104	28 (27)	34 (33)	31 (30)	11 (11)		
Pakistan	87	15 (17)	16 (18)	44 (51)	12 (14)	96	3 (3)	6 (6)	65 (68)	22 (23)		
Dominican Republic	81	14 (17)	11 (14)	46 (57)	10 (12)	77	17 (22)	17 (22)	33 (43)	10 (13)		
Kenya	76	21 (28)	32 (42)	21 (28)	2 (3)	75	1 (1)	1 (1)	47 (63)	26 (35)		
Cambodia	75	5 (7)	11 (15)	52 (69)	7 (9)	71	16 (23)	31 (44)	9 (13)	15 (21)		
Nepal	67	21 (31)	30 (45)	13 (19)	3 (4)	52	24 (46)	20 (38)	5 (10)	3 (6)		
Laos	65	2 (3)	8 (12)	44 (68)	11 (17)	50	9 (18)	11 (22)	25 (50)	5 (10)		
Bangladesh	54	14 (26)	19 (35)	18 (33)	3 (6)	48	5 (10)	11 (23)	25 (52)	7 (15)		
Thailand	53	10 (19)	16 (30)	24 (45)	3 (6)	48	7 (15)	11 (23)	21 (44)	9 (19)		
Nigeria	48	14 (29)	13 (27)	18 (38)	3 (6)	41	7 (17)	15 (37)	15 (37)	4 (10)		
Colombia	43	2 (5)	3 (7)	30 (70)	8 (19)	41	12 (29)	7 (17)	15 (37)	7 (17)		
Cuba	41	4 (10)	2 (5)	33 (80)	2 (5)	38	1 (3)	3 (8)	26 (68)	8 (21)		
Russia	36	4 (11)	12 (33)	18 (50)	2 (6)	36	25 (69)	8 (22)	2 (6)	1 (3)		
Nicaragua	32	7 (22)	6 (19)	17 (53)	2 (6)	36	5 (14)	7 (19)	19 (53)	5 (14)		
Taiwan	32	2 (6)	6 (19)	19 (59)	5 (16)	34	4 (12)	8 (24)	11 (32)	11 (32)		
Brazil	28	3 (11)	11 (39)	9 (32)	5 (18)	34	2 (6)	4 (12)	15 (44)	13 (38)		
All Others ⁵	823	142 (17)	161 (20)	445 (54)	75 (9)	848	161 (19)	176 (21)	382 (45)	129 (15)		
Total	7362	1197 (16)	1515 (21)	3845 (52)	805 (11)	7350	1199 (16)	1467 (20)	3485 (47)	1199 (16)		

¹Includes persons ≥ 15 years of age.

²Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

³Ranked by total case count.

⁴Among foreign-born persons, the number of years since arrival in the United States before diagnosis with tuberculosis.

⁵Includes Not Specified for Country of Origin. Excludes missing.

Note: Data for all years updated through May 20, 2009.

See Surveillance Slide #18

Table 8. Tuberculosis Cases and Percentages by Case Verification Criterion and Site of Disease: United States, 1993–2008

Year	Total Cases	Verification Criterion ¹								Site of Disease ⁴			
		Positive Culture		Positive Smear		Clinical Case Definition		Provider Diagnosis		Pulmonary ²		Extra-pulmonary ³	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	25107	20307	(81)	185	(1)	3085	(12)	1530	(6)	21158	(84)	3940	(16)
1994	24205	19506	(81)	189	(1)	2899	(12)	1611	(7)	20318	(84)	3885	(16)
1995	22728	18267	(80)	189	(1)	2727	(12)	1545	(7)	18888	(83)	3835	(17)
1996	21210	17154	(81)	131	(1)	2599	(12)	1326	(6)	17387	(82)	3814	(18)
1997	19751	15979	(81)	155	(1)	2405	(12)	1212	(6)	16239	(82)	3509	(18)
1998	18287	14790	(81)	155	(1)	2252	(12)	1090	(6)	14801	(81)	3484	(19)
1999	17501	13995	(80)	172	(1)	2101	(12)	1233	(7)	14067	(80)	3431	(20)
2000	16310	13014	(80)	148	(1)	1950	(12)	1198	(7)	13087	(80)	3211	(20)
2001	15945	12750	(80)	123	(1)	1886	(12)	1186	(7)	12724	(80)	3217	(20)
2002	15056	11976	(80)	104	(1)	1819	(12)	1157	(8)	11902	(79)	3148	(21)
2003	14836	11683	(79)	116	(1)	1783	(12)	1254	(8)	11807	(80)	3019	(20)
2004	14500	11327	(78)	79	(1)	1826	(13)	1268	(9)	11523	(79)	2973	(21)
2005	14067	10953	(78)	96	(1)	1802	(13)	1216	(9)	11132	(79)	2935	(21)
2006	13727	10744	(78)	95	(1)	1641	(12)	1247	(9)	10850	(79)	2871	(21)
2007	13288	10422	(78)	73	(1)	1470	(11)	1323	(10)	10585	(80)	2692	(20)
2008	12904	10030	(78)	65	(1)	1400	(11)	1409	(11)	10257	(80)	2638	(20)

¹Based on the public health surveillance case definition for tuberculosis: CDC. Case definitions for infectious conditions under public health surveillance. *MMWR* 1997;46(No. RR-10):40–41. See Appendix A.

²Includes cases among persons with both pulmonary and extrapulmonary disease and cases of miliary TB.

³Includes cases among persons with extrapulmonary TB disease only.

⁴Excludes missing and unknowns.

Note: See Technical Notes for a description of national TB surveillance (page 9).

Data for all years updated through May 20, 2009.

Table 9. Pulmonary Tuberculosis Cases and Percentages by Sputum Smear and Sputum Culture Results: United States, 1993–2008

Year	Total Pulmonary Cases ¹	Sputum Smear Result						Sputum Culture Result					
		Positive		Negative		Not Done or Unknown		Positive		Negative		Not Done or Unknown	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	21158	9429	(45)	7915	(37)	3814	(18)	14878	(70)	2814	(13)	3466	(16)
1994	20318	8964	(44)	7914	(39)	3440	(17)	14210	(70)	2807	(14)	3301	(16)
1995	18888	8093	(43)	7713	(41)	3082	(16)	13282	(70)	2626	(14)	2980	(16)
1996	17387	7454	(43)	7352	(42)	2581	(15)	12270	(71)	2559	(15)	2558	(15)
1997	16239	6935	(43)	6916	(43)	2388	(15)	11568	(71)	2259	(14)	2412	(15)
1998	14801	6624	(45)	6038	(41)	2139	(14)	10486	(71)	2138	(14)	2177	(15)
1999	14067	6275	(45)	5662	(40)	2130	(15)	9820	(70)	2097	(15)	2150	(15)
2000	13087	5884	(45)	5346	(41)	1857	(14)	9251	(71)	1948	(15)	1888	(14)
2001	12724	5651	(44)	5322	(42)	1751	(14)	8904	(70)	2010	(16)	1810	(14)
2002	11902	5440	(46)	4791	(40)	1671	(14)	8332	(70)	1838	(15)	1732	(15)
2003	11807	5371	(45)	4881	(41)	1555	(13)	8208	(70)	1981	(17)	1618	(14)
2004	11523	5276	(46)	4899	(43)	1348	(12)	8048	(70)	2055	(18)	1420	(12)
2005	11132	5138	(46)	4745	(43)	1249	(11)	7705	(69)	2088	(19)	1339	(12)
2006	10850	5140	(47)	4577	(42)	1133	(10)	7688	(71)	1958	(18)	1204	(11)
2007	10585	4893	(46)	4530	(43)	1162	(11)	7388	(70)	1963	(19)	1234	(12)
2008	10257	4742	(46)	4372	(43)	1143	(11)	7083	(69)	1937	(19)	1237	(12)

¹Includes cases among persons with both pulmonary and extrapulmonary disease and cases of miliary TB.

Note: See Technical Notes (page 9).

Data for all years updated through May 20, 2009.

Table 10. Tuberculosis Cases and Percentages, by Resistance to INH or Multidrug Resistance¹ in Persons with No Previous History of TB, by Origin of Birth: United States, 1993–2008

Year	Resistance to Isoniazid ²						Resistance to Isoniazid and Rifampin ²					
	Total Cases ^{3,4}		U.S.-born		Foreign-born ^{5,6}		Total Cases ^{3,4}		U.S.-born		Foreign-born ^{5,6}	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	1399	(8.4)	804	(6.8)	579	(12.4)	407	(2.5)	301	(2.6)	103	(2.2)
1994	1360	(8.3)	711	(6.5)	635	(12.0)	353	(2.2)	238	(2.2)	110	(2.1)
1995	1174	(7.3)	555	(5.4)	618	(11.0)	254	(1.6)	169	(1.6)	85	(1.5)
1996	1137	(7.4)	495	(5.2)	639	(11.3)	207	(1.3)	105	(1.1)	101	(1.8)
1997	1079	(7.5)	435	(5.0)	640	(11.2)	155	(1.1)	76	(0.9)	79	(1.4)
1998	1013	(7.5)	367	(4.8)	644	(11.3)	132	(1.0)	55	(0.7)	76	(1.3)
1999	899	(7.1)	283	(4.0)	614	(11.0)	127	(1.0)	39	(0.6)	88	(1.6)
2000	890	(7.5)	269	(4.4)	618	(10.9)	120	(1.0)	40	(0.7)	80	(1.4)
2001	802	(7.0)	243	(4.4)	558	(9.5)	115	(1.0)	34	(0.6)	81	(1.4)
2002	825	(7.7)	205	(4.1)	619	(10.9)	132	(1.2)	35	(0.7)	97	(1.7)
2003	822	(7.7)	215	(4.5)	604	(10.4)	94	(0.9)	24	(0.5)	70	(1.2)
2004	801	(7.6)	214	(4.6)	587	(10.2)	100	(1.0)	26	(0.6)	74	(1.3)
2005	764	(7.6)	188	(4.3)	570	(10.1)	98	(1.0)	20	(0.5)	77	(1.4)
2006	771	(7.8)	172	(4.2)	597	(10.4)	101	(1.0)	18	(0.4)	83	(1.4)
2007	719	(7.5)	166	(4.3)	552	(9.6)	104	(1.1)	19	(0.5)	85	(1.5)
2008	726	(8.2)	173	(4.9)	550	(10.3)	86	(1.0)	20	(0.6)	66	(1.2)

¹Resistance to at least isoniazid and rifampin.

²Isolates may be resistant to other drugs.

³All cases were culture positive, and initial drug susceptibility testing done.

⁴Includes persons of unknown country of birth.

⁵Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

⁶Includes Not Specified for Country of Origin. Excludes missing.

Note: Data for all years updated through May 20, 2009.

Percentages are of total cases for given year with no previous history of TB, culture positive, and initial drug susceptibility testing done (total cases not shown).

More than 95% of all persons in each group had drug-susceptibility test results reported for an initial isolate.

See Surveillance Slides #19 through #22.

Table 11. Tuberculosis Cases and Percentages, by Resistance to INH or Multidrug Resistance¹ in Persons with Previous History of TB, by Origin of Birth: United States, 1993–2008

Year	Resistance to Isoniazid ²						Resistance to Isoniazid and Rifampin ²					
	Total Cases ^{3,4}		U.S.-born		Foreign-born ^{5,6}		Total Cases ^{3,4}		U.S.-born		Foreign-born ^{5,6}	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	164	(16.6)	85	(12.7)	76	(25.0)	76	(7.7)	30	(4.5)	46	(15.3)
1994	176	(17.0)	81	(11.7)	94	(27.9)	74	(7.2)	35	(5.1)	38	(11.3)
1995	168	(17.5)	77	(13.0)	91	(25.1)	70	(7.3)	28	(4.7)	42	(11.6)
1996	142	(16.5)	67	(12.0)	74	(24.4)	43	(5.0)	20	(3.6)	22	(7.3)
1997	109	(14.7)	35	(7.7)	74	(25.9)	44	(5.9)	12	(2.6)	32	(11.2)
1998	98	(13.0)	38	(7.8)	60	(22.8)	23	(3.1)	6	(1.2)	17	(6.5)
1999	82	(12.3)	25	(6.5)	55	(19.4)	28	(4.2)	6	(1.6)	22	(7.8)
2000	84	(13.2)	22	(6.1)	62	(22.8)	26	(4.1)	2	(0.6)	24	(8.8)
2001	86	(13.7)	28	(8.6)	58	(19.3)	32	(5.1)	7	(2.2)	25	(8.3)
2002	80	(14.1)	23	(7.6)	57	(21.6)	26	(4.6)	3	(1.0)	23	(8.7)
2003	65	(12.5)	16	(6.4)	49	(18.1)	21	(4.0)	2	(0.8)	19	(7.0)
2004	64	(11.9)	15	(5.5)	49	(18.6)	27	(5.0)	4	(1.5)	23	(8.7)
2005	70	(13.8)	18	(7.6)	52	(19.3)	22	(4.4)	1	(0.4)	21	(7.8)
2006	67	(13.6)	9	(4.4)	57	(19.7)	21	(4.3)	1	(0.5)	20	(6.9)
2007	71	(14.3)	14	(6.8)	57	(19.7)	19	(3.8)	3	(1.4)	16	(5.5)
2008	53	(13.0)	12	(7.6)	41	(16.3)	17	(4.2)	2	(1.3)	15	(6.0)

¹Resistance to at least isoniazid and rifampin

²Isolates may be resistant to other drugs.

³All cases were culture positive, and initial drug susceptibility testing done.

⁴Includes persons of unknown country of birth.

⁵Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

⁶Includes Not Specified for Country of Origin. Excludes missing.

Note: Data for all years updated through May 20, 2009.

Percentages are of total cases for given year with previous history of TB, culture positive, and initial drug susceptibility testing done (total cases not shown). More than 95% of all persons in each group had drug-susceptibility test results reported for an initial isolate.

Table 12. Percentages of Tuberculosis Cases by Initial Drug Regimen, Use of Directly Observed Therapy (DOT), and Completion of Therapy (COT): United States, 1993–2008

Year	Initial Drug Regimen ^{1,2}				Directly Observed Therapy ³		Therapy ≤1 Year Indicated ⁴	
					Both DOT and Self-			
	I R	IRZ	IRZ, E/S	IRZE	DOT Only	Administered	COT ≤1 Year	COT
1993	(12.9)	(31.2)	(40.9)	(40.3)	(21.7)	(14.4)	(64.1)	(87.5)
1994	(7.0)	(23.3)	(56.3)	(55.7)	(28.1)	(20.5)	(69.0)	(87.9)
1995	(5.2)	(20.3)	(63.4)	(62.7)	(37.2)	(21.5)	(73.9)	(89.6)
1996	(4.2)	(17.5)	(67.9)	(67.3)	(42.5)	(22.4)	(76.4)	(90.5)
1997	(3.2)	(15.1)	(72.4)	(71.9)	(46.9)	(23.8)	(78.2)	(91.3)
1998	(2.6)	(12.9)	(74.7)	(74.3)	(47.6)	(26.6)	(80.6)	(92.5)
1999	(2.2)	(11.2)	(77.2)	(76.9)	(49.4)	(27.6)	(80.8)	(92.3)
2000	(2.0)	(10.4)	(78.7)	(78.5)	(52.5)	(25.8)	(81.5)	(92.6)
2001	(1.7)	(9.6)	(80.1)	(79.8)	(53.6)	(27.5)	(81.5)	(92.5)
2002	(1.8)	(8.9)	(80.5)	(80.3)	(55.3)	(27.8)	(82.1)	(92.4)
2003	(1.4)	(8.1)	(81.5)	(81.3)	(56.5)	(28.4)	(82.8)	(92.7)
2004	(1.5)	(6.3)	(82.5)	(82.4)	(58.9)	(27.7)	(82.9)	(91.8)
2005	(1.3)	(5.5)	(83.8)	(83.7)	(57.9)	(29.6)	(83.0)	(92.3)
2006	(1.2)	(4.8)	(83.3)	(83.2)	(57.5)	(30.4)	(83.5)	(92.5)
2007	(1.1)	(4.6)	(83.3)	(83.3)	...	...	...	...
2008	(0.9)	(3.5)	(83.3)	(83.2)	...	...	...	...

¹Includes persons alive at diagnosis.

²I=isoniazid; R=rifampin; Z=pyrazinamide; E=ethambutol; S=streptomycin. Excludes cases with no information on initial drug regimen; 1.11% received no initial drug therapy, 0.16% were started on one drug, and 11.03% had an initial multidrug regimen other than IR, IRZ, or IRZ,E/S.

³Includes persons alive at diagnosis with initial drug regimen of one or more drugs prescribed.

⁴Includes persons alive at diagnosis, with initial drug regimen of one or more drugs prescribed, who did not die during therapy. Excludes persons with initial isolate resistant to rifampin and pediatric (aged <15) cases with meningeal, bone or joint, or miliary disease. See **Note:** Data for all years updated through May 20, 2009.

Technical Notes for description of COT calculation (page 9).

See Surveillance Slides #26 and #27.

Table 13. Tuberculosis Cases and Percentages in Persons with HIV Test Results¹ and with HIV Coinfection by Age Group: United States, 1993–2008

Year	25–44 Years Old				All Ages			
	HIV Test Results		HIV Positive		HIV Test Results		HIV Positive	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	4377	(46)	2790	(29)	7455	(30)	3682	(15)
1994	4443	(49)	2669	(30)	7887	(33)	3601	(15)
1995	4277	(52)	2172	(26)	8179	(36)	3038	(13)
1996	4366	(58)	1856	(25)	8832	(42)	2615	(12)
1997	4142	(60)	1473	(21)	8771	(44)	2092	(11)
1998	3862	(61)	1240	(20)	8292	(45)	1831	(10)
1999	3811	(63)	1175	(19)	8420	(48)	1726	(10)
2000	3525	(63)	955	(17)	8117	(50)	1464	(9)
2001	3576	(64)	911	(16)	8095	(51)	1408	(9)
2002	3512	(66)	845	(16)	8022	(53)	1390	(9)
2003	3424	(68)	807	(16)	8118	(55)	1320	(9)
2004	3442	(70)	682	(14)	8507	(59)	1194	(8)
2005	3273	(69)	611	(13)	8226	(58)	1042	(7)
2006	3277	(70)	557	(12)	8270	(60)	961	(7)
2007	3147	(73)	488	(11)	8302	(62)	883	(7)
2008	3036	(72)	411	(10)	8010	(62)	820	(6)

¹Includes persons with positive, negative, or indeterminate HIV test results and persons from California with co-diagnosis of TB and AIDS. In California, the number of patients testing negative, indeterminate, refusing testing, not offered testing, test performed but status unknown, unknown, or missing HIV data is not reported to CDC. California has not reported AIDS test results since 2004. Rhode Island did not report HIV test results for years 1993–1997. Vermont did not report HIV test results for years 1993–2008.

Note: Data for all years updated through May 20, 2009.

See Surveillance Slides #24 and #25.

Table 14. Tuberculosis Cases and Percentages by Reason Tuberculosis Therapy Stopped: United States, 1993–2006

Year	Total Cases ¹	Completed Therapy		Moved		Lost		Refused		Died ²		Unknown ³	
	No.	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1993	23741	18043	(76.0)	1120	(4.7)	1086	(4.6)	223	(0.9)	3053	(12.9)	216	(0.9)
1994	23051	17763	(77.1)	1194	(5.2)	739	(3.2)	183	(0.8)	2743	(11.9)	429	(1.9)
1995	21712	17285	(79.6)	969	(4.5)	566	(2.6)	156	(0.7)	2391	(11.0)	345	(1.6)
1996	20297	16510	(81.3)	783	(3.9)	520	(2.6)	156	(0.8)	1992	(9.8)	336	(1.7)
1997	18930	15654	(82.7)	667	(3.5)	435	(2.3)	119	(0.6)	1755	(9.3)	300	(1.6)
1998	17585	14763	(84.0)	534	(3.0)	400	(2.3)	104	(0.6)	1578	(9.0)	206	(1.2)
1999	16863	14219	(84.3)	456	(2.7)	356	(2.1)	104	(0.6)	1436	(8.5)	292	(1.7)
2000	15787	13400	(84.9)	408	(2.6)	392	(2.5)	112	(0.7)	1294	(8.2)	181	(1.1)
2001	15409	13203	(85.7)	376	(2.4)	364	(2.4)	98	(0.6)	1115	(7.2)	253	(1.6)
2002	14560	12436	(85.4)	335	(2.3)	365	(2.5)	86	(0.6)	1071	(7.4)	267	(1.8)
2003	14381	12393	(86.2)	312	(2.2)	361	(2.5)	84	(0.6)	992	(6.9)	239	(1.7)
2004	14077	12012	(85.3)	336	(2.4)	334	(2.4)	82	(0.6)	963	(6.8)	350	(2.5)
2005	13679	11707	(85.6)	327	(2.4)	337	(2.5)	88	(0.6)	982	(7.2)	238	(1.7)
2006	13306	11425	(85.9)	328	(2.5)	346	(2.6)	76	(0.6)	931	(7.0)	200	(1.5)

¹Includes all cases in persons reported as alive at diagnosis and taking one or more TB drugs.

²Died = died of any cause (not only TB).

³Includes cases in persons reporting reason therapy stopped = Other, Missing, or Unknown.

Note: Data for all years are updated through May 20, 2009.

Data complete through 2006 only. See Technical Notes (page 9) for details.

Morbidity Tables

United States, 2008

Table 15. Tuberculosis Cases by Hispanic Ethnicity and Non-Hispanic Race, Sex, and Age Group: United States, 2008

Race/Ethnicity and Sex	Age Group							Not Stated
	All Ages	Under 5	5–14	15–24	25–44	45–64	≥65	
Total Cases	12,904	496	290	1,440	4,242	3,935	2,500	1
Male	7,942	255	150	845	2,526	2,680	1,486	0
Female	4,961	241	139	595	1,716	1,255	1,014	1
Unknown	1	0	1	0	0	0	0	0
Hispanic or Latino ¹	3,798	234	123	592	1,518	882	449	0
Male	2,497	118	66	393	1,042	616	262	0
Female	1,300	116	56	199	476	266	187	0
Unknown	1	0	1	0	0	0	0	0
Non-Hispanic								
American Indian or Alaska Native	139	9	1	11	39	52	27	0
Male	80	5	1	4	25	35	10	0
Female	59	4	0	7	14	17	17	0
Unknown	0	0	0	0	0	0	0	0
Asian	3,391	74	57	346	1,136	965	813	0
Male	1,908	48	25	181	557	589	508	0
Female	1,483	26	32	165	579	376	305	0
Unknown	0	0	0	0	0	0	0	0
Black or African American	3,273	132	90	387	1,065	1,151	447	1
Male	1,971	64	48	209	614	794	242	0
Female	1,302	68	42	178	451	357	205	1
Unknown	0	0	0	0	0	0	0	0
Native Hawaiian or Other Pacific Islander	69	3	4	12	21	17	12	0
Male	34	2	2	4	9	11	6	0
Female	35	1	2	8	12	6	6	0
Unknown	0	0	0	0	0	0	0	0
White	2,142	37	11	85	428	841	740	0
Male	1,396	17	6	51	256	615	451	0
Female	746	20	5	34	172	226	289	0
Unknown	0	0	0	0	0	0	0	0
Multiple Race ²	42	1	1	5	19	12	4	0
Male	26	0	1	2	12	7	4	0
Female	16	1	0	3	7	5	0	0
Unknown	0	0	0	0	0	0	0	0
Unknown	50	6	3	2	16	15	8	0
Male	30	1	1	1	11	13	3	0
Female	20	5	2	1	5	2	5	0
Unknown	0	0	0	0	0	0	0	0

¹Persons of Hispanic or Latino ethnicity may be of any race or multiple race.

²Indicates two or more races reported for a person. Category first reported in 2003.

Note: Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple Race does not include persons of Hispanic ethnicity.

See Technical Notes (page 9).

See Surveillance Slide #10.

Table 16. Tuberculosis Case Rates per 100,000 Population by Hispanic Ethnicity and Non-Hispanic Race, Sex, and Age Group: United States, 2008

Race/Ethnicity and Sex	Age Group						
	All Ages	Under 5	5–14	15–24	25–44	45–64	≥65
Total Rate	4.2	2.4	0.7	3.4	5.1	5.0	6.4
Male	5.3	2.4	0.7	3.9	6.0	7.0	9.0
Female	3.2	2.3	0.7	2.9	4.2	3.1	4.5
Hispanic or Latino ¹	8.1	4.4	1.5	7.9	10.0	11.3	16.9
Male	10.3	4.4	1.5	10.0	12.6	15.7	23.0
Female	5.7	4.5	1.4	5.5	6.9	6.8	12.3
American Indian or Alaska Native	6.0	4.7	0.3	2.7	6.0	9.7	13.9
Male	7.0	5.1	0.6	1.9	7.8	13.7	11.6
Female	5.0	4.2	0.0	3.5	4.3	6.1	15.6
Asian	25.6	8.3	3.6	21.1	24.8	29.7	63.5
Male	29.7	10.5	3.1	21.5	24.8	38.8	92.2
Female	21.7	6.0	4.1	20.7	24.7	21.8	41.8
Black or African American	8.8	4.6	1.6	6.2	10.0	13.5	13.9
Male	11.1	4.4	1.7	6.6	12.1	20.5	19.5
Female	6.7	4.8	1.5	5.7	8.1	7.7	10.3
Native Hawaiian or Other Pacific Islander	15.9	8.4	6.2	17.2	15.1	18.2	37.5
Male	15.5	10.9	6.0	11.1	12.8	23.8	41.3
Female	16.2	5.8	6.3	23.6	17.5	12.7	34.4
White	1.1	0.3	0.0	0.3	0.8	1.5	2.4
Male	1.4	0.3	0.1	0.4	1.0	2.2	3.4
Female	0.7	0.4	0.0	0.3	0.7	0.8	1.6
Multiple Race ²	0.9	0.1	0.1	0.6	2.0	1.9	1.7
Male	1.2	0.0	0.2	0.5	2.5	2.3	3.9
Female	0.7	0.3	0.0	0.8	1.4	1.5	0.0

¹Persons of Hispanic or Latino origin may be of any race or multiple race.

²Indicates two or more races reported for a person. Category first reported in 2003.

Note: Denominators for computing case rates were obtained from the U.S. Census Bureau Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin: July 1, 2008 (<http://www.census.gov/popest/national/asrh/files/NC-EST2008-ALLDATA-R-File16.csv>) (Accessed June 24, 2009).

Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple Race does not include persons of Hispanic ethnicity.

See Technical Notes (page 9).

See Surveillance Slide #7.

Table 17. Tuberculosis Cases in U.S.-born Persons by Hispanic Ethnicity and Non-Hispanic Race, Sex, and Age Group: United States, 2008

Race/Ethnicity and Sex	Age Group							Not Stated
	All Ages	Under 5	5–14	15–24	25–44	45–64	≥65	
Total Cases	5,283	428	152	416	1,175	1,942	1,169	1
Male	3,351	217	80	220	718	1,428	688	0
Female	1,931	211	71	196	457	514	481	1
Unknown	1	0	1	0	0	0	0	0
Hispanic or Latino ¹	920	228	79	122	190	190	111	0
Male	550	114	41	64	127	145	59	0
Female	369	114	37	58	63	45	52	0
Unknown	1	0	1	0	0	0	0	0
Non-Hispanic								
American Indian or Alaska Native	135	9	1	11	37	51	26	0
Male	77	5	1	4	24	34	9	0
Female	58	4	0	7	13	17	17	0
Unknown	0	0	0	0	0	0	0	0
Asian	153	45	17	35	29	11	16	0
Male	80	28	7	17	11	9	8	0
Female	73	17	10	18	18	2	8	0
Unknown	0	0	0	0	0	0	0	0
Black or African American	2,234	106	43	180	585	923	396	1
Male	1,409	53	24	95	348	664	225	0
Female	825	53	19	85	237	259	171	1
Unknown	0	0	0	0	0	0	0	0
Native Hawaiian or Other Pacific Islander	50	3	4	11	15	12	5	0
Male	27	2	2	4	8	9	2	0
Female	23	1	2	7	7	3	3	0
Unknown	0	0	0	0	0	0	0	0
White	1,748	32	6	52	313	739	606	0
Male	1,183	15	4	33	195	556	380	0
Female	565	17	2	19	118	183	226	0
Unknown	0	0	0	0	0	0	0	0
Multiple Race ²	17	1	0	3	3	7	3	0
Male	12	0	0	2	3	4	3	0
Female	5	1	0	1	0	3	0	0
Unknown	0	0	0	0	0	0	0	0
Unknown	26	4	2	2	3	9	6	0
Male	13	0	1	1	2	7	2	0
Female	13	4	1	1	1	2	4	0
Unknown	0	0	0	0	0	0	0	0

¹Persons of Hispanic or Latino origin may be of any race or multiple race.

²Indicates two or more races reported for a person. Category first reported in 2003.

Note: Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple race does not include persons of Hispanic ethnicity.

See Technical Notes (page 9).

See Surveillance Slide #13.

Table 18. Tuberculosis Cases in Foreign-born Persons¹ by Hispanic Ethnicity and Non-Hispanic Race, Sex, and Age Group: United States, 2008

Race/Ethnicity and Sex	Age Group							Not Stated
	All Ages	Under 5	5–14	15–24	25–44	45–64	≥65	
Total Cases	7,563	65	136	1,017	3,050	1,974	1,321	0
Male	4,554	37	68	623	1,798	1,237	791	0
Female	3,009	28	68	394	1,252	737	530	0
Unknown	0	0	0	0	0	0	0	0
Hispanic or Latino ²	2,861	6	42	470	1,321	686	336	0
Male	1,933	4	23	329	909	466	202	0
Female	928	2	19	141	412	220	134	0
Unknown	0	0	0	0	0	0	0	0
Non-Hispanic								
American Indian or Alaska Native	4	0	0	0	2	1	1	0
Male	3	0	0	0	1	1	1	0
Female	1	0	0	0	1	0	0	0
Unknown	0	0	0	0	0	0	0	0
Asian	3,217	29	40	309	1,101	946	792	0
Male	1,816	20	18	164	544	574	496	0
Female	1,401	9	22	145	557	372	296	0
Unknown	0	0	0	0	0	0	0	0
Black or African American	1,030	25	47	202	479	226	51	0
Male	559	11	24	112	266	129	17	0
Female	471	14	23	90	213	97	34	0
Unknown	0	0	0	0	0	0	0	0
Native Hawaiian or Other Pacific Islander	19	0	0	1	6	5	7	0
Male	7	0	0	0	1	2	4	0
Female	12	0	0	1	5	3	3	0
Unknown	0	0	0	0	0	0	0	0
White	389	5	5	33	114	101	131	0
Male	210	2	2	18	61	58	69	0
Female	179	3	3	15	53	43	62	0
Unknown	0	0	0	0	0	0	0	0
Multiple Race ³	25	0	1	2	16	5	1	0
Male	14	0	1	0	9	3	1	0
Female	11	0	0	2	7	2	0	0
Unknown	0	0	0	0	0	0	0	0
Unknown	18	0	1	0	11	4	2	0
Male	12	0	0	0	7	4	1	0
Female	6	0	1	0	4	0	1	0
Unknown	0	0	0	0	0	0	0	0

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

²Persons of Hispanic or Latino ethnicity may be of any race or multiple race.

³Indicates two or more races reported for a person. Category first reported in 2003.

Note: Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple race does not include persons of Hispanic ethnicity.

See Technical Notes (page 9).

See Surveillance Slide #13.

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Table 19. Tuberculosis Cases by Country of Origin¹: United States, 2008

African Region					
Total Cases = 594					
Algeria	3	Ethiopia	180	Niger	5
Angola	0	Gabon	3	Nigeria	49
Benin	1	Gambia	7	Rwanda	2
Botswana	2	Ghana	25	Sao Tome and Principe	0
Burkina Faso	1	Guinea	18	Senegal	9
Burundi	8	Guinea-Bissau	0	Seychelles	1
Cameroon	26	Kenya	81	Sierra Leone	10
Cape Verde	7	Lesotho	0	South Africa	18
Central African Republic	1	Liberia	37	Swaziland	0
Chad	0	Madagascar	2	Tanzania, UR	8
Comoros	5	Malawi	3	Togo	6
Congo, Republic of	11	Mali	11	Uganda	12
Côte d'Ivoire	9	Mauritania	4	Zambia	5
DR Congo	2	Mauritius	0	Zimbabwe	9
Equatorial Guinea	0	Mozambique	4		
Eritrea	8	Namibia	1		

Americas Region					
Total Cases = 8,388					
Anguilla	0	Cuba	41	Panama	7
Antigua and Barbuda	2	Dominica	1	Paraguay	3
Argentina	5	Dominican Republic	88	Peru	144
Bahamas	2	Ecuador	113	Puerto Rico	59
Barbados	2	El Salvador	145	St. Kitts and Nevis	0
Belize	5	Grenada	2	St. Lucia	1
Bermuda	2	Guatemala	248	St. Vincent & Grenadines	0
Bolivia	15	Guyana	23	Suriname	0
Brazil	28	Haiti	238	Trinidad and Tobago	10
British Virgin Islands	0	Honduras	192	Turks and Caicos Islands	0
Canada	8	Jamaica	17	Uruguay	1
Cayman Islands	0	Mexico	1,753	U.S. Virgin Islands	1
Chile	5	Montserrat	1	United States of America	5,144
Colombia	43	Netherland Antilles	0	Venezuela	4
Costa Rica	3	Nicaragua	32		

Eastern Mediterranean Region					
Total Cases = 338					
Afghanistan	10	Lebanon	0	Sudan	25
Bahrain	0	Libyan Arab Jamahiriya	2	Syrian Arab Republic	1
Djibouti	0	Morocco	11	Tunisia	0
Egypt	7	Oman	0	United Arab Emirates	0
Iran, Islamic Republic of	19	Pakistan	89	West Bank and Gaza	0
Iraq	7	Qatar	0	Yemen	8
Jordan	3	Saudi Arabia	5		
Kuwait	1	Somalia	150		

Table 19. (Cont'd) Tuberculosis Cases by Country of Origin¹: United States, 2008

European Region					
Total Cases = 262					
Albania	6	Germany	12	Norway	0
Andorra	0	Greece	8	Poland	25
Armenia	10	Hungary	5	Portugal	16
Austria	2	Iceland	0	Romania	11
Azerbaijan	3	Ireland	1	Russian Federation	37
Belarus	1	Israel	1	San Marino	0
Belguim	1	Italy	11	Serbia	1
Bosnia and Herzegovina	21	Kazakhstan	0	Slovakia	0
Bulgaria	6	Kyrgyzstan	1	Slovenia	0
Croatia	2	Latvia	0	Spain	2
Cyprus	0	Lithuania	0	Sweden	1
Czech Republic	0	Luxembourg	0	Switzerland	1
Czechoslovakia	1	Macedonia, TFYR	3	Tajikistan	0
Denmark	1	Malta	0	Turkey	9
Estonia	0	Moldova, Republic of	2	Turkmenistan	1
Finland	0	Monaco	0	Ukraine	22
France	8	Montenegro	1	United Kingdom	14
Georgia	4	Netherlands	1	Uzbekistan	5
				Yugoslavia	5
Southeast Asia Region					
Total Cases = 963					
Bangladesh	56	Korea, DPR	28	Sri Lanka	3
Bhutan	8	Maldives	0	Thailand	59
India	599	Myanmar	112	Timor-Leste	0
Indonesia	28	Nepal	70		
Western Pacific Region					
Total Cases = 2,261					
American Samoa	1	Korea, Rep.	152	Philippines	855
Australia	0	Lao, PDR	65	Samoa	2
Brunei Darussalam	0	Malaysia	6	Singapore	3
Cambodia	75	Marshall Islands, Republic of	27	Solomon Islands	0
China	399	Micronesia, Federated States of	16	Tokelau	0
China, Hong Kong SAR	26	Mongolia	10	Tonga	4
China, Macao SAR	0	Nauru	0	Tuvalu	0
Cook Islands	0	New Caledonia	0	Vanuatu	0
Fiji	7	New Zealand	0	Viet nam	587
French Polynesia	0	Niue	0	Wallis and Futuna	0
Guam	8	N. Mariana Islands, Commonwealth of	1		
Japan	15	Palau, Republic of	1		
Kiribati	0	Papua New Guinea	1		
Other²					
Total Cases = 40					
Unknown					
Total Cases = 58					

¹Country as reported by patient.²Includes country codes currently reported via the National Tuberculosis Surveillance System that are not represented by WHO member states.**Note:** Regional composition of countries based on WHO Report *Global Tuberculosis Control 2009, Epidemiology, Strategy, Financing, World Health Organization (WHO/HTM/TB/2009.411)* (http://www.who.int/tb/publications/global_report/en/).

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Morbidity Tables Reporting Areas, 2008

Table 20. Tuberculosis Cases and Case Rates per 100,000 Population: Reporting Areas, 2008 and 2007

Reporting Area	Cases		Case Rates		Rank According to Rate		Population Estimates July 1, 2008
	2008	2007	2008	2007	2008	2007	
United States	12,904	13,288	4.2	4.4	--	--	304,059,724
Alabama	176	176	3.8	3.8	17	23	4,661,900
Alaska	50	50	7.3	7.3	3	3	686,293
Arizona	227	302	3.5	4.8	21	12	6,500,180
Arkansas	83	106	2.9	3.7	26	24	2,855,390
California	2,695	2,728	7.3	7.5	2	2	36,756,666
Colorado	103	111	2.1	2.3	31	30	4,939,456
Connecticut	98	108	2.8	3.1	27	26	3,501,252
Delaware	23	19	2.6	2.2	29	33	873,092
District of Columbia ¹	54	59	9.1	10.0	--	--	587,868
Florida	954	988	5.2	5.4	6	6	18,328,340
Georgia	478	473	4.9	5.0	8	8	9,685,744
Hawaii	124	122	9.6	9.6	1	1	1,288,198
Idaho	11	9	0.7	0.6	48	48	1,523,816
Illinois	469	520	3.6	4.1	19	18	12,901,563
Indiana	118	128	1.9	2.0	37	36	6,376,792
Iowa	49	43	1.6	1.4	40	41	3,002,555
Kansas	57	59	2.0	2.1	32	35	2,802,134
Kentucky	101	120	2.4	2.8	30	27	4,269,245
Louisiana	227	217	5.1	5.0	7	9	4,410,796
Maine	9	19	0.7	1.4	49	40	1,316,456
Maryland	278	271	4.9	4.8	9	11	5,633,597
Massachusetts	261	224	4.0	3.5	14	25	6,497,967
Michigan	188	225	1.9	2.2	35	31	10,003,422
Minnesota	211	238	4.0	4.6	13	14	5,220,393
Mississippi	118	138	4.0	4.7	15	13	2,938,618
Missouri	107	118	1.8	2.0	39	37	5,911,605
Montana	9	11	0.9	1.1	47	45	967,440
Nebraska	33	25	1.9	1.4	38	42	1,783,432
Nevada	102	102	3.9	4.0	16	20	2,600,167
New Hampshire	19	11	1.4	0.8	42	47	1,315,809
New Jersey	422	467	4.9	5.4	10	7	8,682,661
New Mexico	60	51	3.0	2.6	25	28	1,984,356
New York	1,200	1,169	6.2	6.0	5	5	19,490,297
North Carolina	335	345	3.6	3.8	20	22	9,222,414
North Dakota	3	7	0.5	1.1	50	46	641,481
Ohio	213	251	1.9	2.2	36	34	11,485,910
Oklahoma	100	149	2.7	4.1	28	17	3,642,361
Oregon	75	94	2.0	2.5	34	29	3,790,060
Pennsylvania	387	276	3.1	2.2	24	32	12,448,279
Rhode Island	36	45	3.4	4.3	23	16	1,050,788
South Carolina	188	218	4.2	4.9	12	10	4,479,800
South Dakota	16	13	2.0	1.6	33	38	804,194
Tennessee	282	235	4.5	3.8	11	21	6,214,888
Texas	1,501	1,510	6.2	6.3	4	4	24,326,974
Utah	27	39	1.0	1.5	44	39	2,736,424
Vermont	6	3	1.0	0.5	45	49	621,270
Virginia	292	309	3.8	4.0	18	19	7,769,089
Washington	228	291	3.5	4.5	22	15	6,549,224
West Virginia	28	24	1.5	1.3	41	43	1,814,468
Wisconsin	68	70	1.2	1.3	43	44	5,627,967
Wyoming	5	2	0.9	0.4	46	50	532,668
American Samoa ^{1,2}	3	3	4.6	4.7	--	--	64,827
Fed. States of Micronesia ^{1,2}	182	142	169.0	131.7	--	--	107,665
Guam ^{1,2}	90	93	51.1	53.6	--	--	175,991
Marshall Islands ^{1,2}	125	125	197.9	202.2	--	--	63,174
N. Mariana Islands ^{1,2}	34	42	39.3	49.7	--	--	86,616
Puerto Rico ^{1,2}	95	98	2.4	2.5	--	--	3,954,037
Republic of Palau ^{1,2}	17	12	82.1	58.3	--	--	20,701
U.S. Virgin Islands ^{1,2}	4	...	3.6	...	--	--	109,840

¹Not ranked with the states. See Table 28 for District of Columbia ranking among states.

²Not included in U.S. totals.

Note: Denominators for computing 2007 and 2008 rates for states, the District of Columbia, and Puerto Rico were obtained from Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000–July 1, 2008 (NST-EST2008-01) (accessed June 25, 2009) (<http://www.census.gov/popest/states/tables/NST-EST2008-01.xls>); for all other areas, from IDB Summary Demographic Data (<http://www.census.gov/ipc/www/idb/summaries.html>).

Ellipses indicate data not available.

See Technical Notes (page 9).

See Surveillance Slide #4.

Table 21. Tuberculosis Cases and Percentages by Age Group: Reporting Areas, 2008

Reporting Area	Total Cases	Under 5		5–14		15–24		25–44		45–64		≥65		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	12,904	496	3.8	290	(2.2)	1,440	(11.2)	4,242	(32.9)	3,935	(30.5)	2,500	(19.4)	1	(0.0)
Alabama	176	5	(2.8)	3	(1.7)	15	(8.5)	44	(25.0)	59	(33.5)	50	(28.4)	0	(0.0)
Alaska	50	2	(4.0)	2	(4.0)	2	(4.0)	17	(34.0)	19	(38.0)	8	(16.0)	0	(0.0)
Arizona	227	19	(8.4)	10	(4.4)	25	(11.0)	79	(34.8)	51	(22.5)	43	(18.9)	0	(0.0)
Arkansas	83	3	(3.6)	4	(4.8)	8	(9.6)	16	(19.3)	25	(30.1)	27	(32.5)	0	(0.0)
California	2,695	87	(3.2)	68	(2.5)	280	(10.4)	812	(30.1)	825	(30.6)	623	(23.1)	0	(0.0)
Colorado	103	5	(4.9)	5	(4.9)	13	(12.6)	33	(32.0)	28	(27.2)	19	(18.4)	0	(0.0)
Connecticut	98	2	(2.0)	0	(0.0)	14	(14.3)	40	(40.8)	23	(23.5)	19	(19.4)	0	(0.0)
Delaware	23	2	(8.7)	0	(0.0)	3	(13.0)	13	(56.5)	1	(4.3)	4	(17.4)	0	(0.0)
District of Columbia	54	3	(5.6)	0	(0.0)	9	(16.7)	16	(29.6)	21	(38.9)	5	(9.3)	0	(0.0)
Florida	954	38	(4.0)	9	(0.9)	93	(9.7)	278	(29.1)	373	(39.1)	163	(17.1)	0	(0.0)
Georgia	478	33	(6.9)	9	(1.9)	51	(10.7)	177	(37.0)	146	(30.5)	62	(13.0)	0	(0.0)
Hawaii	124	0	(0.0)	2	(1.6)	12	(9.7)	25	(20.2)	55	(44.4)	30	(24.2)	0	(0.0)
Idaho	11	1	(9.1)	1	(9.1)	4	(36.4)	1	(9.1)	0	(0.0)	4	(36.4)	0	(0.0)
Illinois	469	9	(1.9)	5	(1.1)	44	(9.4)	166	(35.4)	155	(33.0)	90	(19.2)	0	(0.0)
Indiana	118	7	(5.9)	2	(1.7)	12	(10.2)	33	(28.0)	33	(28.0)	31	(26.3)	0	(0.0)
Iowa	49	0	(0.0)	1	(2.0)	5	(10.2)	20	(40.8)	17	(34.7)	6	(12.2)	0	(0.0)
Kansas	57	6	(10.5)	3	(5.3)	8	(14.0)	20	(35.1)	11	(19.3)	9	(15.8)	0	(0.0)
Kentucky	101	1	(1.0)	4	(4.0)	19	(18.8)	27	(26.7)	28	(27.7)	22	(21.8)	0	(0.0)
Louisiana	227	2	(0.9)	2	(0.9)	25	(11.0)	74	(32.6)	87	(38.3)	37	(16.3)	0	(0.0)
Maine	9	0	(0.0)	0	(0.0)	1	(11.1)	3	(33.3)	4	(44.4)	1	(11.1)	0	(0.0)
Maryland	278	9	(3.2)	3	(1.1)	46	(16.5)	103	(37.1)	64	(23.0)	53	(19.1)	0	(0.0)
Massachusetts	261	2	(0.8)	2	(0.8)	39	(14.9)	97	(37.2)	75	(28.7)	46	(17.6)	0	(0.0)
Michigan	188	5	(2.7)	2	(1.1)	22	(11.7)	58	(30.9)	65	(34.6)	36	(19.1)	0	(0.0)
Minnesota	211	18	(8.5)	13	(6.2)	52	(24.6)	72	(34.1)	33	(15.6)	23	(10.9)	0	(0.0)
Mississippi	118	3	(2.5)	6	(5.1)	6	(5.1)	32	(27.1)	50	(42.4)	21	(17.8)	0	(0.0)
Missouri	107	3	(2.8)	0	(0.0)	14	(13.1)	38	(35.5)	25	(23.4)	27	(25.2)	0	(0.0)
Montana	9	1	(11.1)	0	(0.0)	1	(11.1)	2	(22.2)	2	(22.2)	3	(33.3)	0	(0.0)
Nebraska	33	4	(12.1)	1	(3.0)	7	(21.2)	12	(36.4)	7	(21.2)	2	(6.1)	0	(0.0)
Nevada	102	11	(10.8)	1	(1.0)	10	(9.8)	29	(28.4)	35	(34.3)	16	(15.7)	0	(0.0)
New Hampshire	19	0	(0.0)	0	(0.0)	3	(15.8)	5	(26.3)	4	(21.1)	7	(36.8)	0	(0.0)
New Jersey	422	2	(0.5)	7	(1.7)	42	(10.0)	176	(41.7)	122	(28.9)	73	(17.3)	0	(0.0)

Table 21. (Cont'd) Tuberculosis Cases and Percentages by Age Group: Reporting Areas, 2008

Reporting Area	Total Cases	Under 5		5–14		15–24		25–44		45–64		≥65		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
New Mexico	60	0	(0.0)	2	(3.3)	3	(5.0)	12	(20.0)	22	(36.7)	21	(35.0)	0	(0.0)
New York	1,200	16	(1.3)	25	(2.1)	160	(13.3)	427	(35.6)	363	(30.3)	209	(17.4)	0	(0.0)
North Carolina	335	19	(5.7)	8	(2.4)	30	(9.0)	119	(35.5)	91	(27.2)	68	(20.3)	0	(0.0)
North Dakota	3	0	(0.0)	0	(0.0)	1	(33.3)	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)
Ohio	213	12	(5.6)	9	(4.2)	28	(13.1)	70	(32.9)	45	(21.1)	49	(23.0)	0	(0.0)
Oklahoma	100	11	(11.0)	1	(1.0)	7	(7.0)	30	(30.0)	33	(33.0)	17	(17.0)	1	(1.0)
Oregon	75	2	(2.7)	1	(1.3)	10	(13.3)	29	(38.7)	19	(25.3)	14	(18.7)	0	(0.0)
Pennsylvania	387	24	(6.2)	29	(7.5)	44	(11.4)	104	(26.9)	94	(24.3)	92	(23.8)	0	(0.0)
Rhode Island	36	1	(2.8)	3	(8.3)	2	(5.6)	12	(33.3)	10	(27.8)	8	(22.2)	0	(0.0)
South Carolina	188	14	(7.4)	5	(2.7)	17	(9.0)	59	(31.4)	52	(27.7)	41	(21.8)	0	(0.0)
South Dakota	16	6	(37.5)	2	(12.5)	2	(12.5)	4	(25.0)	0	(0.0)	2	(12.5)	0	(0.0)
Tennessee	282	13	(4.6)	2	(0.7)	21	(7.4)	94	(33.3)	88	(31.2)	64	(22.7)	0	(0.0)
Texas	1,501	74	(4.9)	23	(1.5)	149	(9.9)	540	(36.0)	503	(33.5)	212	(14.1)	0	(0.0)
Utah	27	1	(3.7)	0	(0.0)	6	(22.2)	6	(22.2)	5	(18.5)	9	(33.3)	0	(0.0)
Vermont	6	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)	4	(66.7)	1	(16.7)	0	(0.0)
Virginia	292	5	(1.7)	4	(1.4)	32	(11.0)	101	(34.6)	83	(28.4)	67	(22.9)	0	(0.0)
Washington	228	13	(5.7)	10	(4.4)	31	(13.6)	81	(35.5)	48	(21.1)	45	(19.7)	0	(0.0)
West Virginia	28	1	(3.6)	0	(0.0)	3	(10.7)	6	(21.4)	12	(42.9)	6	(21.4)	0	(0.0)
Wisconsin	68	1	(1.5)	1	(1.5)	9	(13.2)	25	(36.8)	17	(25.0)	15	(22.1)	0	(0.0)
Wyoming	5	0	(0.0)	0	(0.0)	0	(0.0)	3	(60.0)	2	(40.0)	0	(0.0)	0	(0.0)
American Samoa ¹	3	0	(0.0)	0	(0.0)	1	(33.3)	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)
Fed. States of Micronesia ¹	182	8	(4.4)	22	(12.1)	50	(27.5)	54	(29.7)	34	(18.7)	7	(3.8)	7	(3.8)
Guam ¹	90	16	(17.8)	9	(10.0)	6	(6.7)	17	(18.9)	26	(28.9)	16	(17.8)	0	(0.0)
Marshall Islands ¹	125	10	(8.0)	9	(7.2)	27	(21.6)	36	(28.8)	33	(26.4)	6	(4.8)	4	(3.2)
N. Mariana Islands ¹	34	0	(0.0)	0	(0.0)	2	(5.9)	14	(41.2)	15	(44.1)	3	(8.8)	0	(0.0)
Puerto Rico ¹	95	1	(1.1)	1	(1.1)	4	(4.2)	24	(25.3)	42	(44.2)	23	(24.2)	0	(0.0)
Republic of Palau ¹	17	1	(5.9)	1	(5.9)	1	(5.9)	4	(23.5)	9	(52.9)	0	(0.0)	1	(5.9)
U.S. Virgin Islands ¹	4	0	(0.0)	0	(0.0)	1	(25.0)	2	(50.0)	1	(25.0)	0	(0.0)	0	(0.0)

¹Not included in U.S. totals. Data for 2008 are interim as of May 20, 2009.

Table 22. Tuberculosis Cases and Percentages by Hispanic Ethnicity and Non-Hispanic Race: Reporting Areas, 2008

Reporting Areas	Total Cases		Hispanic or Latino¹		American Indian or Alaska Native		Asian		Black or African American		Native Hawaiian or Other Pacific Islander		White		Multiple Race²		Unknown or Missing	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	12,904	3,798 (29.4)	139 (1.1)	3,391 (26.3)	3,273 (25.4)	69 (0.5)	2,142 (16.6)	42 (0.3)	50 (0.4)									
Alabama	176	27 (15.3)	0 (0.0)	9 (5.1)	80 (45.5)	0 (0.0)	60 (34.1)	0 (0.0)	0 (0.0)									
Alaska	50	3 (6.0)	33 (66.0)	9 (18.0)	2 (4.0)	0 (0.0)	3 (6.0)	0 (0.0)	0 (0.0)									
Arizona	227	128 (56.4)	15 (6.6)	34 (15.0)	18 (7.9)	0 (0.0)	30 (13.2)	2 (0.9)	0 (0.0)									
Arkansas	83	9 (10.8)	0 (0.0)	9 (10.8)	21 (25.3)	1 (1.2)	40 (48.2)	0 (0.0)	3 (3.6)									
California	2,695	1,058 (39.3)	9 (0.3)	1,138 (42.2)	207 (7.7)	12 (0.4)	261 (9.7)	6 (0.2)	4 (0.1)									
Colorado	103	37 (35.9)	3 (2.9)	29 (28.2)	18 (17.5)	1 (1.0)	14 (13.6)	1 (1.0)	0 (0.0)									
Connecticut	98	30 (30.6)	0 (0.0)	32 (32.7)	18 (18.4)	1 (1.0)	17 (17.3)	0 (0.0)	0 (0.0)									
Delaware	23	7 (30.4)	0 (0.0)	4 (17.4)	6 (26.1)	0 (0.0)	6 (26.1)	0 (0.0)	0 (0.0)									
District of Columbia	54	9 (16.7)	0 (0.0)	3 (5.6)	41 (75.9)	0 (0.0)	1 (1.9)	0 (0.0)	0 (0.0)									
Florida	954	255 (26.7)	1 (0.1)	95 (10.0)	387 (40.6)	0 (0.0)	210 (22.0)	2 (0.2)	4 (0.4)									
Georgia	478	93 (19.5)	0 (0.0)	84 (17.6)	229 (47.9)	1 (0.2)	69 (14.4)	0 (0.0)	2 (0.4)									
Hawaii	124	1 (0.8)	0 (0.0)	93 (75.0)	1 (0.8)	25 (20.2)	3 (2.4)	1 (0.8)	0 (0.0)									
Idaho	11	2 (18.2)	0 (0.0)	1 (9.1)	2 (18.2)	1 (9.1)	5 (45.5)	0 (0.0)	0 (0.0)									
Illinois	469	96 (20.5)	0 (0.0)	151 (32.2)	132 (28.1)	0 (0.0)	83 (17.7)	0 (0.0)	7 (1.5)									
Indiana	118	23 (19.5)	1 (0.8)	25 (21.2)	23 (19.5)	0 (0.0)	46 (39.0)	0 (0.0)	0 (0.0)									
Iowa	49	7 (14.3)	0 (0.0)	18 (36.7)	8 (16.3)	0 (0.0)	16 (32.7)	0 (0.0)	0 (0.0)									
Kansas	57	21 (36.8)	2 (3.5)	17 (29.8)	10 (17.5)	0 (0.0)	7 (12.3)	0 (0.0)	0 (0.0)									
Kentucky	101	20 (19.8)	0 (0.0)	8 (7.9)	19 (18.8)	0 (0.0)	53 (52.5)	1 (1.0)	0 (0.0)									
Louisiana	227	21 (9.3)	0 (0.0)	19 (8.4)	122 (53.7)	0 (0.0)	62 (27.3)	0 (0.0)	3 (1.3)									
Maine	9	1 (11.1)	0 (0.0)	2 (22.2)	4 (44.4)	0 (0.0)	2 (22.2)	0 (0.0)	0 (0.0)									
Maryland	278	52 (18.7)	0 (0.0)	85 (30.6)	111 (39.9)	0 (0.0)	30 (10.8)	0 (0.0)	0 (0.0)									
Massachusetts	261	41 (15.7)	0 (0.0)	94 (36.0)	71 (27.2)	0 (0.0)	53 (20.3)	2 (0.8)	0 (0.0)									
Michigan	188	26 (13.8)	0 (0.0)	44 (23.4)	61 (32.4)	0 (0.0)	54 (28.7)	0 (0.0)	3 (1.6)									
Minnesota	211	32 (15.2)	4 (1.9)	48 (22.7)	111 (52.6)	0 (0.0)	16 (7.6)	0 (0.0)	0 (0.0)									
Mississippi	118	5 (4.2)	0 (0.0)	3 (2.5)	80 (67.8)	0 (0.0)	30 (25.4)	0 (0.0)	0 (0.0)									
Missouri	107	13 (12.1)	1 (0.9)	20 (18.7)	36 (33.6)	1 (0.9)	35 (32.7)	1 (0.9)	0 (0.0)									
Montana	9	0 (0.0)	4 (44.4)	2 (22.2)	0 (0.0)	0 (0.0)	3 (33.3)	0 (0.0)	0 (0.0)									
Nebraska	33	14 (42.4)	1 (3.0)	6 (18.2)	8 (24.2)	0 (0.0)	4 (12.1)	0 (0.0)	0 (0.0)									
Nevada	102	43 (42.2)	1 (1.0)	32 (31.4)	10 (9.8)	0 (0.0)	16 (15.7)	0 (0.0)	0 (0.0)									
New Hampshire	19	3 (15.8)	0 (0.0)	6 (31.6)	2 (10.5)	0 (0.0)	8 (42.1)	0 (0.0)	0 (0.0)									
New Jersey	422	128 (30.3)	0 (0.0)	168 (39.8)	77 (18.2)	0 (0.0)	49 (11.6)	0 (0.0)	0 (0.0)									
New Mexico	60	36 (60.0)	18 (30.0)	6 (10.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)									

Table 22. (Cont'd) Tuberculosis Cases and Percentages by Hispanic Ethnicity and Non-Hispanic Race: Reporting Areas, 2008

Reporting Areas	Total Cases	Hispanic or Latino ¹		American Indian or Alaska Native		Asian		Black or African American		Native Hawaiian or Other Pacific Islander		White		Multiple Race ²		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
New York	1,200	363	(30.3)	1	(0.1)	401	(33.4)	274	(22.8)	2	(0.2)	140	(11.7)	7	(0.6)	12	(1.0)
North Carolina	335	85	(25.4)	9	(2.7)	44	(13.1)	129	(38.5)	0	(0.0)	57	(17.0)	11	(3.3)	0	(0.0)
North Dakota	3	0	(0.0)	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)
Ohio	213	32	(15.0)	1	(0.5)	41	(19.2)	82	(38.5)	0	(0.0)	56	(26.3)	1	(0.5)	0	(0.0)
Oklahoma	100	13	(13.0)	19	(19.0)	7	(7.0)	23	(23.0)	6	(6.0)	31	(31.0)	0	(0.0)	1	(1.0)
Oregon	75	23	(30.7)	0	(0.0)	30	(40.0)	3	(4.0)	2	(2.7)	17	(22.7)	0	(0.0)	0	(0.0)
Pennsylvania	387	41	(10.6)	0	(0.0)	112	(28.9)	141	(36.4)	1	(0.3)	91	(23.5)	1	(0.3)	0	(0.0)
Rhode Island	36	9	(25.0)	1	(2.8)	13	(36.1)	9	(25.0)	0	(0.0)	4	(11.1)	0	(0.0)	0	(0.0)
South Carolina	188	44	(23.4)	0	(0.0)	21	(11.2)	101	(53.7)	0	(0.0)	22	(11.7)	0	(0.0)	0	(0.0)
South Dakota	16	0	(0.0)	4	(25.0)	1	(6.3)	4	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	7	(43.8)
Tennessee	282	43	(15.2)	1	(0.4)	26	(9.2)	115	(40.8)	0	(0.0)	97	(34.4)	0	(0.0)	0	(0.0)
Texas	1,501	763	(50.8)	1	(0.1)	174	(11.6)	331	(22.1)	3	(0.2)	223	(14.9)	6	(0.4)	0	(0.0)
Utah	27	10	(37.0)	1	(3.7)	6	(22.2)	3	(11.1)	1	(3.7)	6	(22.2)	0	(0.0)	0	(0.0)
Vermont	6	0	(0.0)	0	(0.0)	1	(16.7)	1	(16.7)	0	(0.0)	4	(66.7)	0	(0.0)	0	(0.0)
Virginia	292	61	(20.9)	0	(0.0)	114	(39.0)	75	(25.7)	0	(0.0)	42	(14.4)	0	(0.0)	0	(0.0)
Washington	228	52	(22.8)	6	(2.6)	78	(34.2)	51	(22.4)	11	(4.8)	29	(12.7)	0	(0.0)	1	(0.4)
West Virginia	28	3	(10.7)	0	(0.0)	3	(10.7)	3	(10.7)	0	(0.0)	19	(67.9)	0	(0.0)	0	(0.0)
Wisconsin	68	13	(19.1)	1	(1.5)	23	(33.8)	13	(19.1)	0	(0.0)	15	(22.1)	0	(0.0)	3	(4.4)
Wyoming	5	2	(40.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)	2	(40.0)	0	(0.0)	0	(0.0)
American Samoa ³	3	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(66.7)
Fed. States of Micronesia ³	182	3	(1.6)	0	(0.0)	1	(0.5)	0	(0.0)	147	(80.8)	0	(0.0)	0	(0.0)	31	(17.0)
Guam ³	90	1	(1.1)	0	(0.0)	22	(24.4)	1	(1.1)	48	(53.3)	0	(0.0)	0	(0.0)	18	(20.0)
Marshall Islands ³	125	0	(0.0)	0	(0.0)	1	(0.8)	0	(0.0)	119	(95.2)	0	(0.0)	0	(0.0)	5	(4.0)
N. Mariana Islands ³	34	0	(0.0)	0	(0.0)	23	(67.6)	0	(0.0)	8	(23.5)	1	(2.9)	0	(0.0)	2	(5.9)
Puerto Rico ³	95	94	(98.9)	0	(0.0)	1	(1.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Republic of Palau ³	17	0	(0.0)	0	(0.0)	3	(17.6)	0	(0.0)	13	(76.5)	0	(0.0)	0	(0.0)	1	(5.9)
U.S. Virgin Islands ³	4	0	(0.0)	0	(0.0)	0	(0.0)	3	(75.0)	0	(0.0)	1	(25.0)	0	(0.0)	0	(0.0)

¹Persons of Hispanic origin may be of any race or multiple race.

²Indicates two or more races reported for a person.

³Not included in U.S. totals.

Note: Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple Race does not include persons of Hispanic ethnicity. See Technical Notes (page 9).

Table 23. Tuberculosis Cases and Percentages, U.S.-born and Foreign-born Persons: States, 2008

States	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown Origin	
		No.	(%)	No.	(%)	No.	(%)
United States	12,904	5,283	(40.9)	7,563	(58.6)	58	(0.4)
Alabama	176	136	(77.3)	40	(22.7)	0	(0.0)
Alaska	50	38	(76.0)	12	(24.0)	0	(0.0)
Arizona	227	79	(34.8)	148	(65.2)	0	(0.0)
Arkansas	83	66	(79.5)	15	(18.1)	2	(2.4)
California	2,695	672	(24.9)	2,012	(74.7)	11	(0.4)
Colorado	103	30	(29.1)	73	(70.9)	0	(0.0)
Connecticut	98	22	(22.4)	76	(77.6)	0	(0.0)
Delaware	23	8	(34.8)	15	(65.2)	0	(0.0)
District of Columbia	54	26	(48.1)	28	(51.9)	0	(0.0)
Florida	954	504	(52.8)	450	(47.2)	0	(0.0)
Georgia	478	282	(59.0)	196	(41.0)	0	(0.0)
Hawaii	124	38	(30.6)	86	(69.4)	0	(0.0)
Idaho	11	4	(36.4)	7	(63.6)	0	(0.0)
Illinois	469	187	(39.9)	282	(60.1)	0	(0.0)
Indiana	118	70	(59.3)	48	(40.7)	0	(0.0)
Iowa	49	17	(34.7)	32	(65.3)	0	(0.0)
Kansas	57	20	(35.1)	37	(64.9)	0	(0.0)
Kentucky	101	58	(57.4)	43	(42.6)	0	(0.0)
Louisiana	227	182	(80.2)	45	(19.8)	0	(0.0)
Maine	9	1	(11.1)	8	(88.9)	0	(0.0)
Maryland	278	81	(29.1)	197	(70.9)	0	(0.0)
Massachusetts	261	46	(17.6)	215	(82.4)	0	(0.0)
Michigan	188	104	(55.3)	83	(44.1)	1	(0.5)
Minnesota	211	56	(26.5)	155	(73.5)	0	(0.0)
Mississippi	118	110	(93.2)	8	(6.8)	0	(0.0)
Missouri	107	47	(43.9)	60	(56.1)	0	(0.0)
Montana	9	6	(66.7)	3	(33.3)	0	(0.0)
Nebraska	33	10	(30.3)	23	(69.7)	0	(0.0)
Nevada	102	32	(31.4)	70	(68.6)	0	(0.0)
New Hampshire	19	5	(26.3)	14	(73.7)	0	(0.0)
New Jersey	422	99	(23.5)	323	(76.5)	0	(0.0)
New Mexico	60	28	(46.7)	32	(53.3)	0	(0.0)
New York	1,200	287	(23.9)	907	(75.6)	6	(0.5)
North Carolina	335	213	(63.6)	122	(36.4)	0	(0.0)
North Dakota	3	2	(66.7)	1	(33.3)	0	(0.0)
Ohio	213	115	(54.0)	98	(46.0)	0	(0.0)
Oklahoma	100	80	(80.0)	18	(18.0)	2	(2.0)
Oregon	75	18	(24.0)	57	(76.0)	0	(0.0)
Pennsylvania	387	179	(46.3)	183	(47.3)	25	(6.5)
Rhode Island	36	8	(22.2)	28	(77.8)	0	(0.0)
South Carolina	188	131	(69.7)	57	(30.3)	0	(0.0)
South Dakota	16	12	(75.0)	4	(25.0)	0	(0.0)
Tennessee	282	195	(69.1)	85	(30.1)	2	(0.7)
Texas	1,501	775	(51.6)	726	(48.4)	0	(0.0)
Utah	27	10	(37.0)	17	(63.0)	0	(0.0)
Vermont	6	3	(50.0)	3	(50.0)	0	(0.0)
Virginia	292	80	(27.4)	212	(72.6)	0	(0.0)
Washington	228	63	(27.6)	165	(72.4)	0	(0.0)
West Virginia	28	21	(75.0)	7	(25.0)	0	(0.0)
Wisconsin	68	25	(36.8)	34	(50.0)	9	(13.2)
Wyoming	5	2	(40.0)	3	(60.0)	0	(0.0)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

Note: See Surveillance Slide #14.

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Table 24. Tuberculosis Cases and Percentages in Foreign-born Persons¹ by Country of Origin: States, 2008

Table 24. (Cont'd) Tuberculosis Cases and Percentages in Foreign-born Persons¹ by Country of Origin: States, 2008

Total Cases		Country of Origin																	
		Mexico		Philippines		India		Viet Nam		China		Guatemala		Haiti		All Others ²		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
State		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Nebraska	23	6	(26.1)	1	(4.3)	1	(4.3)	2	(8.7)	0	(0.0)	5	(21.7)	0	(0.0)	8	(34.8)	0	(0.0)
Nevada	70	25	(35.7)	22	(31.4)	0	(0.0)	1	(1.4)	3	(4.3)	1	(1.4)	0	(0.0)	18	(25.7)	0	(0.0)
New Hampshire	14	0	(0.0)	1	(7.1)	3	(21.4)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	10	(71.4)	0	(0.0)
New Jersey	323	22	(6.8)	36	(11.1)	82	(25.4)	9	(2.8)	9	(2.8)	10	(3.1)	8	(2.5)	147	(45.5)	0	(0.0)
New Mexico	32	25	(78.1)	2	(6.3)	1	(3.1)	2	(6.3)	1	(3.1)	0	(0.0)	0	(0.0)	1	(3.1)	0	(0.0)
New York	907	62	(6.8)	47	(5.2)	59	(6.5)	13	(1.4)	137	(15.1)	16	(1.8)	53	(5.8)	520	(57.3)	0	(0.0)
North Carolina	122	41	(33.6)	7	(5.7)	11	(9.0)	11	(9.0)	2	(1.6)	3	(2.5)	2	(1.6)	43	(35.2)	2	(1.6)
North Dakota	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)
Ohio	98	16	(16.3)	8	(8.2)	13	(13.3)	3	(3.1)	5	(5.1)	5	(5.1)	0	(0.0)	48	(49.0)	0	(0.0)
Oklahoma	18	7	(38.9)	0	(0.0)	1	(5.6)	1	(5.6)	0	(0.0)	2	(11.1)	0	(0.0)	7	(38.9)	0	(0.0)
Oregon	57	17	(29.8)	6	(10.5)	4	(7.0)	9	(15.8)	0	(0.0)	3	(5.3)	0	(0.0)	18	(31.6)	0	(0.0)
Pennsylvania	183	7	(3.8)	9	(4.9)	30	(16.4)	25	(13.7)	8	(4.4)	2	(1.1)	11	(6.0)	90	(49.2)	1	(0.5)
Rhode Island	28	1	(3.6)	1	(3.6)	2	(7.1)	0	(0.0)	0	(0.0)	4	(14.3)	0	(0.0)	20	(71.4)	0	(0.0)
South Carolina	57	22	(38.6)	4	(7.0)	6	(10.5)	5	(8.8)	1	(1.8)	2	(3.5)	0	(0.0)	17	(29.8)	0	(0.0)
South Dakota	4	0	(0.0)	0	(0.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(75.0)	0	(0.0)
Tennessee	85	20	(23.5)	7	(8.2)	6	(7.1)	7	(8.2)	1	(1.2)	12	(14.1)	1	(1.2)	31	(36.5)	0	(0.0)
Texas	726	379	(52.2)	26	(3.6)	31	(4.3)	60	(8.3)	10	(1.4)	21	(2.9)	4	(0.6)	194	(26.7)	1	(0.1)
Utah	17	6	(35.3)	0	(0.0)	1	(5.9)	1	(5.9)	1	(5.9)	0	(0.0)	0	(0.0)	8	(47.1)	0	(0.0)
Vermont	3	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	2	(66.7)	0	(0.0)
Virginia	212	17	(8.0)	22	(10.4)	24	(11.3)	23	(10.8)	7	(3.3)	4	(1.9)	1	(0.5)	114	(53.8)	0	(0.0)
Washington	165	35	(21.2)	18	(10.9)	10	(6.1)	19	(11.5)	5	(3.0)	1	(0.6)	0	(0.0)	77	(46.7)	0	(0.0)
West Virginia	7	3	(42.9)	2	(28.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(28.6)	0	(0.0)
Wisconsin	34	11	(32.4)	5	(14.7)	3	(8.8)	1	(2.9)	0	(0.0)	1	(2.9)	1	(2.9)	12	(35.3)	0	(0.0)
Wyoming	3	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor outlying and Pacific islands.

²Includes 150 countries.

Note: See Surveillance Slide #17.

Table 25. Tuberculosis Cases and Percentages in Foreign-born Persons¹ by Number of Years in the United States: States, 2008

State	Total Cases	<1 Year		1–4		5–9		10–19		≥20		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	7,563	1,319	(17.4)	1,564	(20.7)	1,177	(15.6)	1,263	(16.7)	1,425	(18.8)	815	(10.8)
Alabama	40	7	(17.5)	17	(42.5)	6	(15.0)	3	(7.5)	5	(12.5)	2	(5.0)
Alaska	12	6	(50.0)	2	(16.7)	1	(8.3)	1	(8.3)	0	(0.0)	2	(16.7)
Arizona	148	34	(23.0)	21	(14.2)	28	(18.9)	11	(7.4)	27	(18.2)	27	(18.2)
Arkansas	15	2	(13.3)	4	(26.7)	2	(13.3)	4	(26.7)	3	(20.0)	0	(0.0)
California	2,012	270	(13.4)	276	(13.7)	237	(11.8)	338	(16.8)	562	(27.9)	329	(16.4)
Colorado	73	24	(32.9)	10	(13.7)	9	(12.3)	9	(12.3)	12	(16.4)	9	(12.3)
Connecticut	76	10	(13.2)	26	(34.2)	17	(22.4)	13	(17.1)	8	(10.5)	2	(2.6)
Delaware	15	4	(26.7)	3	(20.0)	4	(26.7)	3	(20.0)	1	(6.7)	0	(0.0)
District of Columbia	28	5	(17.9)	13	(46.4)	3	(10.7)	3	(10.7)	4	(14.3)	0	(0.0)
Florida	450	89	(19.8)	110	(24.4)	84	(18.7)	53	(11.8)	89	(19.8)	25	(5.6)
Georgia	196	35	(17.9)	49	(25.0)	39	(19.9)	36	(18.4)	30	(15.3)	7	(3.6)
Hawaii	86	17	(19.8)	12	(14.0)	8	(9.3)	22	(25.6)	20	(23.3)	7	(8.1)
Idaho	7	0	(0.0)	5	(71.4)	1	(14.3)	0	(0.0)	1	(14.3)	0	(0.0)
Illinois	282	42	(14.9)	46	(16.3)	51	(18.1)	66	(23.4)	49	(17.4)	28	(9.9)
Indiana	48	16	(33.3)	8	(16.7)	1	(2.1)	5	(10.4)	2	(4.2)	16	(33.3)
Iowa	32	9	(28.1)	9	(28.1)	4	(12.5)	4	(12.5)	6	(18.8)	0	(0.0)
Kansas	37	12	(32.4)	2	(5.4)	10	(27.0)	7	(18.9)	6	(16.2)	0	(0.0)
Kentucky	43	10	(23.3)	18	(41.9)	7	(16.3)	5	(11.6)	3	(7.0)	0	(0.0)
Louisiana	45	10	(22.2)	12	(26.7)	7	(15.6)	8	(17.8)	8	(17.8)	0	(0.0)
Maine	8	0	(0.0)	3	(37.5)	3	(37.5)	1	(12.5)	1	(12.5)	0	(0.0)
Maryland	197	46	(23.4)	54	(27.4)	33	(16.8)	34	(17.3)	28	(14.2)	2	(1.0)
Massachusetts	215	43	(20.0)	61	(28.4)	36	(16.7)	35	(16.3)	36	(16.7)	4	(1.9)
Michigan	83	13	(15.7)	15	(18.1)	12	(14.5)	16	(19.3)	11	(13.3)	16	(19.3)
Minnesota	155	35	(22.6)	45	(29.0)	25	(16.1)	13	(8.4)	10	(6.5)	27	(17.4)
Mississippi	8	1	(12.5)	3	(37.5)	1	(12.5)	2	(25.0)	1	(12.5)	0	(0.0)
Missouri	60	15	(25.0)	20	(33.3)	12	(20.0)	10	(16.7)	3	(5.0)	0	(0.0)
Montana	3	1	(33.3)	0	(0.0)	1	(33.3)	0	(0.0)	1	(33.3)	0	(0.0)
Nebraska	23	6	(26.1)	7	(30.4)	4	(17.4)	4	(17.4)	2	(8.7)	0	(0.0)
Nevada	70	11	(15.7)	11	(15.7)	9	(12.9)	21	(30.0)	18	(25.7)	0	(0.0)
New Hampshire	14	4	(28.6)	3	(21.4)	2	(14.3)	2	(14.3)	2	(14.3)	1	(7.1)
New Jersey	323	34	(10.5)	51	(15.8)	47	(14.6)	38	(11.8)	23	(7.1)	130	(40.2)
New Mexico	32	6	(18.8)	3	(9.4)	2	(6.3)	9	(28.1)	10	(31.3)	2	(6.3)
New York	907	144	(15.9)	216	(23.8)	169	(18.6)	173	(19.1)	157	(17.3)	48	(5.3)
North Carolina	122	23	(18.9)	35	(28.7)	23	(18.9)	22	(18.0)	12	(9.8)	7	(5.7)
North Dakota	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)
Ohio	98	22	(22.4)	34	(34.7)	15	(15.3)	6	(6.1)	9	(9.2)	12	(12.2)
Oklahoma	18	4	(22.2)	5	(27.8)	0	(0.0)	2	(11.1)	3	(16.7)	4	(22.2)
Oregon	57	7	(12.3)	9	(15.8)	3	(5.3)	4	(7.0)	2	(3.5)	32	(56.1)
Pennsylvania	183	39	(21.3)	48	(26.2)	33	(18.0)	27	(14.8)	21	(11.5)	15	(8.2)
Rhode Island	28	5	(17.9)	2	(7.1)	0	(0.0)	0	(0.0)	1	(3.6)	20	(71.4)
South Carolina	57	12	(21.1)	23	(40.4)	11	(19.3)	4	(7.0)	6	(10.5)	1	(1.8)
South Dakota	4	2	(50.0)	1	(25.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)
Tennessee	85	14	(16.5)	28	(32.9)	22	(25.9)	17	(20.0)	4	(4.7)	0	(0.0)
Texas	726	149	(20.5)	133	(18.3)	113	(15.6)	164	(22.6)	167	(23.0)	0	(0.0)
Utah	17	3	(17.6)	5	(29.4)	0	(0.0)	5	(29.4)	4	(23.5)	0	(0.0)
Vermont	3	0	(0.0)	0	(0.0)	0	(0.0)	3	(100.0)	0	(0.0)	0	(0.0)
Virginia	212	53	(25.0)	56	(26.4)	43	(20.3)	27	(12.7)	33	(15.6)	0	(0.0)
Washington	165	18	(10.9)	35	(21.2)	28	(17.0)	26	(15.8)	20	(12.1)	38	(23.0)
West Virginia	7	1	(14.3)	1	(14.3)	2	(28.6)	2	(28.6)	1	(14.3)	0	(0.0)
Wisconsin	34	5	(14.7)	13	(38.2)	8	(23.5)	5	(14.7)	3	(8.8)	0	(0.0)
Wyoming	3	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

Table 26. Tuberculosis Cases and Percentages by Pulmonary and Extrapulmonary Disease: Reporting Areas, 2008

Reporting Area	Total Cases	Pulmonary ¹		Extrapulmonary ²		Pulmonary and Extrapulmonary Cases		
		No.	(%)	No.	(%)	Total ³		Miliary
						No.	(%)	No.
United States	12,904	9,121	(70.7)	2,638	(20.4)	1,136	(8.8)	239
Alabama	176	149	(84.7)	20	(11.4)	7	(4.0)	2
Alaska	50	44	(88.0)	5	(10.0)	1	(2.0)	1
Arizona	227	179	(78.9)	45	(19.8)	3	(1.3)	2
Arkansas	83	63	(75.9)	10	(12.0)	8	(9.6)	1
California	2,695	1,931	(71.7)	537	(19.9)	226	(8.4)	42
Colorado	103	56	(54.4)	29	(28.2)	18	(17.5)	3
Connecticut	98	64	(65.3)	25	(25.5)	9	(9.2)	3
Delaware	23	10	(43.5)	5	(21.7)	8	(34.8)	3
District of Columbia	54	39	(72.2)	15	(27.8)	0	(0.0)	0
Florida	954	775	(81.2)	151	(15.8)	28	(2.9)	4
Georgia	478	351	(73.4)	87	(18.2)	39	(8.2)	6
Hawaii	124	102	(82.3)	14	(11.3)	8	(6.5)	3
Idaho	11	11	(100.0)	0	(0.0)	0	(0.0)	0
Illinois	469	279	(59.5)	137	(29.2)	53	(11.3)	8
Indiana	118	89	(75.4)	20	(16.9)	9	(7.6)	1
Iowa	49	29	(59.2)	20	(40.8)	0	(0.0)	0
Kansas	57	37	(64.9)	15	(26.3)	5	(8.8)	2
Kentucky	101	77	(76.2)	18	(17.8)	6	(5.9)	2
Louisiana	227	189	(83.3)	31	(13.7)	7	(3.1)	3
Maine	9	5	(55.6)	4	(44.4)	0	(0.0)	0
Maryland	278	186	(66.9)	67	(24.1)	25	(9.0)	8
Massachusetts	261	161	(61.7)	51	(19.5)	49	(18.8)	17
Michigan	188	114	(60.6)	45	(23.9)	25	(13.3)	0
Minnesota	211	112	(53.1)	78	(37.0)	21	(10.0)	0
Mississippi	118	96	(81.4)	15	(12.7)	7	(5.9)	2
Missouri	107	76	(71.0)	23	(21.5)	8	(7.5)	3
Montana	9	5	(55.6)	2	(22.2)	2	(22.2)	0
Nebraska	33	24	(72.7)	9	(27.3)	0	(0.0)	0
Nevada	102	76	(74.5)	18	(17.6)	8	(7.8)	0
New Hampshire	19	14	(73.7)	4	(21.1)	1	(5.3)	0
New Jersey	422	276	(65.4)	102	(24.2)	44	(10.4)	6
New Mexico	60	36	(60.0)	16	(26.7)	8	(13.3)	1
New York	1,200	778	(64.8)	281	(23.4)	141	(11.8)	3
North Carolina	335	230	(68.7)	66	(19.7)	39	(11.6)	11
North Dakota	3	3	(100.0)	0	(0.0)	0	(0.0)	0
Ohio	213	146	(68.5)	54	(25.4)	13	(6.1)	3
Oklahoma	100	75	(75.0)	14	(14.0)	11	(11.0)	1
Oregon	75	54	(72.0)	10	(13.3)	11	(14.7)	3
Pennsylvania	387	252	(65.1)	99	(25.6)	35	(9.0)	8
Rhode Island	36	22	(61.1)	7	(19.4)	7	(19.4)	2
South Carolina	188	114	(60.6)	42	(22.3)	32	(17.0)	5
South Dakota	16	14	(87.5)	0	(0.0)	2	(12.5)	1
Tennessee	282	207	(73.4)	47	(16.7)	28	(9.9)	6
Texas	1,501	1,143	(76.1)	249	(16.6)	109	(7.3)	56
Utah	27	18	(66.7)	7	(25.9)	2	(7.4)	0
Vermont	6	1	(16.7)	2	(33.3)	3	(50.0)	2
Virginia	292	216	(74.0)	48	(16.4)	28	(9.6)	5
Washington	228	124	(54.4)	69	(30.3)	35	(15.4)	5
West Virginia	28	24	(85.7)	2	(7.1)	2	(7.1)	0
Wisconsin	68	43	(63.2)	20	(29.4)	5	(7.4)	5
Wyoming	5	2	(40.0)	3	(60.0)	0	(0.0)	0
American Samoa ⁴	3	3	(100.0)	0	(0.0)	0	(0.0)	0
Fed. States of Micronesia ⁴	182	141	(77.5)	28	(15.4)	9	(4.9)	2
Guam ⁴	90	77	(85.6)	8	(8.9)	5	(5.6)	3
Marshall Islands ⁴	125	86	(68.8)	27	(21.6)	9	(7.2)	2
N. Mariana Islands ⁴	34	32	(94.1)	0	(0.0)	2	(5.9)	0
Puerto Rico ⁴	95	81	(85.3)	13	(13.7)	1	(1.1)	1
Republic of Palau ⁴	17	13	(76.5)	3	(17.6)	0	(0.0)	0
U.S. Virgin Islands ⁴	4	1	(25.0)	1	(25.0)	2	(50.0)	0

¹Includes cases with pulmonary listed as major site of disease and no additional site of disease.

²Includes cases with pleural, lymphatic, bone and/or joint, meningeal, peritoneal, genitourinary, or other site, excluding pulmonary, listed as major site of disease.

³Includes miliary cases.

⁴Not included in U.S. totals.

Note: 9 cases had missing and/or unknown site of disease.

Table 27. Extrapulmonary Tuberculosis Cases and Percentages by Site of Disease: Reporting Areas, 2008

Reporting Area	Total Extrapulmonary Cases	Site of Disease									
		Pleural		Lymphatic		Bone and/or Joint		Genitourinary		Meningeal	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	2,638	467	(17.7)	1,103	(41.8)	297	(11.3)	140	(5.3)	125	(4.7)
Alabama	20	5	(25.0)	6	(30.0)	1	(5.0)	2	(10.0)	2	(10.0)
Alaska	5	1	(20.0)	2	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)
Arizona	45	9	(20.0)	13	(28.9)	5	(11.1)	4	(8.9)	3	(6.7)
Arkansas	10	5	(50.0)	3	(30.0)	1	(10.0)	0	(0.0)	0	(0.0)
California	537	100	(18.6)	235	(43.8)	51	(9.5)	31	(5.8)	26	(4.8)
Colorado	29	3	(10.3)	10	(34.5)	2	(6.9)	3	(10.3)	2	(6.9)
Connecticut	25	3	(12.0)	16	(64.0)	0	(0.0)	0	(0.0)	0	(0.0)
Delaware	5	1	(20.0)	3	(60.0)	0	(0.0)	0	(0.0)	1	(20.0)
District of Columbia	15	4	(26.7)	9	(60.0)	0	(0.0)	0	(0.0)	0	(0.0)
Florida	151	29	(19.2)	55	(36.4)	23	(15.2)	2	(1.3)	8	(5.3)
Georgia	87	18	(20.7)	36	(41.4)	5	(5.7)	2	(2.3)	6	(6.9)
Hawaii	14	3	(21.4)	5	(35.7)	1	(7.1)	1	(7.1)	0	(0.0)
Illinois	137	18	(13.1)	50	(36.5)	15	(10.9)	12	(8.8)	7	(5.1)
Indiana	20	5	(25.0)	5	(25.0)	3	(15.0)	3	(15.0)	0	(0.0)
Iowa	20	6	(30.0)	6	(30.0)	3	(15.0)	2	(10.0)	0	(0.0)
Kansas	15	2	(13.3)	6	(40.0)	0	(0.0)	1	(6.7)	1	(6.7)
Kentucky	18	4	(22.2)	7	(38.9)	2	(11.1)	1	(5.6)	1	(5.6)
Louisiana	31	10	(32.3)	7	(22.6)	2	(6.5)	4	(12.9)	0	(0.0)
Maine	4	0	(0.0)	2	(50.0)	0	(0.0)	1	(25.0)	1	(25.0)
Maryland	67	16	(23.9)	24	(35.8)	12	(17.9)	2	(3.0)	2	(3.0)
Massachusetts	51	7	(13.7)	20	(39.2)	5	(9.8)	4	(7.8)	0	(0.0)
Michigan	45	4	(8.9)	16	(35.6)	4	(8.9)	2	(4.4)	2	(4.4)
Minnesota	78	6	(7.7)	45	(57.7)	5	(6.4)	5	(6.4)	1	(1.3)
Mississippi	15	4	(26.7)	3	(20.0)	3	(20.0)	0	(0.0)	0	(0.0)
Missouri	23	3	(13.0)	13	(56.5)	2	(8.7)	1	(4.3)	0	(0.0)
Montana	2	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)
Nebraska	9	2	(22.2)	3	(33.3)	0	(0.0)	2	(22.2)	0	(0.0)
Nevada	18	2	(11.1)	5	(27.8)	5	(27.8)	1	(5.6)	1	(5.6)
New Hampshire	4	1	(25.0)	2	(50.0)	1	(25.0)	0	(0.0)	0	(0.0)
New Jersey	102	10	(9.8)	52	(51.0)	21	(20.6)	4	(3.9)	4	(3.9)

Table 27. (Cont'd) Extrapulmonary Tuberculosis Cases and Percentages by Site of Disease: Reporting Areas, 2008

Total Extrapulmonary Cases			Site of Disease													
			Pleural		Lymphatic		Bone and/or Joint		Genitourinary		Meningeal		Peritoneal		Other	
			No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Reporting Area																
New Mexico	16	2	(12.5)	3	(18.8)	4	(25.0)	2	(12.5)	2	(12.5)	1	(6.3)	2	(12.5)	
New York	281	41	(14.6)	129	(45.9)	43	(15.3)	15	(5.3)	15	(5.3)	10	(3.6)	28	(10.0)	
North Carolina	66	13	(19.7)	24	(36.4)	11	(16.7)	2	(3.0)	4	(6.1)	1	(1.5)	11	(16.7)	
Ohio	54	7	(13.0)	24	(44.4)	7	(13.0)	2	(3.7)	4	(7.4)	5	(9.3)	5	(9.3)	
Oklahoma	14	3	(21.4)	9	(64.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(14.3)	
Oregon	10	3	(30.0)	4	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(30.0)	
Pennsylvania	99	16	(16.2)	49	(49.5)	7	(7.1)	4	(4.0)	4	(4.0)	12	(12.1)	7	(7.1)	
Rhode Island	7	0	(0.0)	3	(42.9)	2	(28.6)	1	(14.3)	0	(0.0)	0	(0.0)	1	(14.3)	
South Carolina	42	9	(21.4)	15	(35.7)	5	(11.9)	4	(9.5)	2	(4.8)	1	(2.4)	6	(14.3)	
Tennessee	47	8	(17.0)	22	(46.8)	4	(8.5)	2	(4.3)	3	(6.4)	2	(4.3)	6	(12.8)	
Texas	249	67	(26.9)	90	(36.1)	24	(9.6)	10	(4.0)	18	(7.2)	17	(6.8)	23	(9.2)	
Utah	7	0	(0.0)	3	(42.9)	0	(0.0)	1	(14.3)	1	(14.3)	0	(0.0)	2	(28.6)	
Vermont	2	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)	1	(50.0)	
Virginia	48	5	(10.4)	28	(58.3)	3	(6.3)	1	(2.1)	0	(0.0)	4	(8.3)	7	(14.6)	
Washington	69	10	(14.5)	30	(43.5)	10	(14.5)	5	(7.2)	2	(2.9)	1	(1.4)	11	(15.9)	
West Virginia	2	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)	
Wisconsin	20	2	(10.0)	10	(50.0)	3	(15.0)	1	(5.0)	1	(5.0)	2	(10.0)	0	(0.0)	
Wyoming	3	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	2	(66.7)	
American Samoa¹	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fed. States of Micronesia¹	28	5	(17.9)	16	(57.1)	2	(7.1)	0	(0.0)	0	(0.0)	4	(14.3)	1	(3.6)	
Guam¹	8	0	(0.0)	4	(50.0)	3	(37.5)	0	(0.0)	1	(12.5)	0	(0.0)	0	(0.0)	
Marshall Islands¹	27	11	(40.7)	12	(44.4)	0	(0.0)	0	(0.0)	1	(3.7)	3	(11.1)	0	(0.0)	
N. Mariana Islands¹	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico¹	13	4	(30.8)	1	(7.7)	1	(7.7)	2	(15.4)	1	(7.7)	2	(15.4)	2	(15.4)	
Republic of Palau¹	3	2	(66.7)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	
U.S. Virgin Islands¹	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	

¹Not included in U.S. totals.

Note: Ellipses indicate data not available.

See Technical Notes (page 9).

Table 28. Tuberculosis Cases and Case Rates per 100,000 Population, Ranked and Grouped by Number of Cases: States and the District of Columbia, 2008 and 2007

	2008		2007		2007–2008 % Change		Overall Rank by 2008 Rate
State	No.	Rate	No.	Rate	No.	Rate	
>= 500 cases in 2008							
California	2695	7.3	2728	7.5	-1.2	-2.2	3
Texas	1501	6.2	1510	6.3	-0.6	-2.6	5
New York ¹	1200	6.2	1169	6.0	2.7	2.3	6
Florida	954	5.2	988	5.4	-3.4	-4.1	7
100 - 499 cases in 2008							
Georgia	478	4.9	473	5.0	1.1	-0.6	9
Illinois	469	3.6	520	4.1	-9.8	-10.3	20
New Jersey	422	4.9	467	5.4	-9.6	-9.9	11
Pennsylvania	387	3.1	276	2.2	40.2	39.9	25
North Carolina	335	3.6	345	3.8	-2.9	-4.8	21
Virginia	292	3.8	309	4.0	-5.5	-6.4	19
Tennessee	282	4.5	235	3.8	20.0	18.7	12
Maryland	278	4.9	271	4.8	2.6	2.3	10
Massachusetts	261	4.0	224	3.5	16.5	16.0	15
Washington	228	3.5	291	4.5	-21.6	-22.8	23
Louisiana	227	5.1	217	5.0	4.6	3.7	8
Arizona	227	3.5	302	4.8	-24.8	-26.5	22
Ohio	213	1.9	251	2.2	-15.1	-15.2	37
Minnesota	211	4.0	238	4.6	-11.3	-12.0	14
South Carolina	188	4.2	218	4.9	-13.8	-15.2	13
Michigan	188	1.9	225	2.2	-16.4	-16.1	36
Alabama	176	3.8	176	3.8	0.0	-0.8	18
Hawaii	124	9.6	122	9.6	1.6	0.8	1
Mississippi	118	4.0	138	4.7	-14.5	-15.0	16
Indiana	118	1.9	128	2.0	-7.8	-8.4	38
Missouri	107	1.8	118	2.0	-9.3	-9.8	40
Colorado	103	2.1	111	2.3	-7.2	-9.0	32
Nevada	102	3.9	102	4.0	0.0	-1.8	17
Kentucky	101	2.4	120	2.8	-15.8	-16.5	31
Oklahoma	100	2.7	149	4.1	-32.9	-33.5	29
< 100 cases in 2008							
Connecticut	98	2.8	108	3.1	-9.3	-9.6	28
Arkansas	83	2.9	106	3.7	-21.7	-22.4	27
Oregon	75	2.0	94	2.5	-20.2	-21.4	35
Wisconsin	68	1.2	70	1.3	-2.9	-3.4	44
New Mexico	60	3.0	51	2.6	17.6	16.5	26
Kansas	57	2.0	59	2.1	-3.4	-4.2	33
District of Columbia	54	9.1	59	10.0	-8.5	-9.1	2
Alaska	50	7.3	50	7.3	0.0	-0.8	4
Iowa	49	1.6	43	1.4	14.0	13.2	41
Rhode Island	36	3.4	45	4.3	-20.0	-19.8	24
Nebraska	33	1.9	25	1.4	32.0	31.0	39
West Virginia	28	1.5	24	1.3	16.7	16.4	42
Utah	27	1.0	39	1.5	-30.8	-32.5	45
Delaware	23	2.6	19	2.2	21.1	19.5	30
New Hampshire	19	1.4	11	0.8	72.7	72.3	43
South Dakota	16	2.0	13	1.6	23.1	21.8	34
Idaho	11	0.7	9	0.6	22.2	20.0	49
Montana	9	0.9	11	1.1	-18.2	-19.1	48
Maine	9	0.7	19	1.4	-52.6	-52.7	50
Vermont	6	1.0	3	0.5	100.0	99.8	46
Wyoming	5	0.9	2	0.4	150.0	145.6	47
North Dakota	3	0.5	7	1.1	-57.1	-57.4	51
Total	12904	4.2	13288	4.4	-2.9	-3.8	

¹Includes New York City.

Note: Denominators for computing 2007 and 2008 rates for states and the District of Columbia were obtained from Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000–July 1, 2008 (NST-EST2008-01) (<http://www.census.gov/popest/states/tables/NST-EST2008-01.xls>) (accessed June 26, 2009).

See Table 20 for ranking of states without the District of Columbia.

Morbidity Tables Reporting Areas, 2008 and 2006

Table 29. Tuberculosis Cases and Percentages by Residence in Correctional Facilities, Age ≥ 15: Reporting Areas, 2008

Reporting Area	Total Cases	Cases with Information on Residence in Correctional Facilities		Cases Reported As Residents of Correctional Facilities ¹	
		No.	(%)	No.	(%)
United States	12,117	12,101	(99.9)	498	(4.1)
Alabama	168	167	(99.4)	6	(3.6)
Alaska	46	46	(100.0)	1	(2.2)
Arizona	198	198	(100.0)	50	(25.3)
Arkansas	76	76	(100.0)	4	(5.3)
California	2,540	2,538	(99.9)	86	(3.4)
Colorado	93	93	(100.0)	4	(4.3)
Connecticut	96	96	(100.0)	0	(0.0)
Delaware	21	21	(100.0)	0	(0.0)
District of Columbia	51	51	(100.0)	1	(2.0)
Florida	907	907	(100.0)	29	(3.2)
Georgia	436	434	(99.5)	28	(6.5)
Hawaii	122	122	(100.0)	2	(1.6)
Idaho	9	9	(100.0)	1	(11.1)
Illinois	455	453	(99.6)	6	(1.3)
Indiana	109	109	(100.0)	2	(1.8)
Iowa	48	48	(100.0)	0	(0.0)
Kansas	48	48	(100.0)	0	(0.0)
Kentucky	96	96	(100.0)	3	(3.1)
Louisiana	223	222	(99.6)	13	(5.9)
Maine	9	9	(100.0)	0	(0.0)
Maryland	266	266	(100.0)	3	(1.1)
Massachusetts	257	257	(100.0)	5	(1.9)
Michigan	181	176	(97.2)	5	(2.8)
Minnesota	180	180	(100.0)	5	(2.8)
Mississippi	109	109	(100.0)	4	(3.7)
Missouri	104	104	(100.0)	1	(1.0)
Montana	8	8	(100.0)	0	(0.0)
Nebraska	28	28	(100.0)	0	(0.0)
Nevada	90	90	(100.0)	2	(2.2)
New Hampshire	19	19	(100.0)	1	(5.3)
New Jersey	413	413	(100.0)	2	(0.5)
New Mexico	58	58	(100.0)	3	(5.2)
New York State ²	289	289	(100.0)	3	(1.0)
New York City	870	870	(100.0)	6	(0.7)
North Carolina	308	308	(100.0)	11	(3.6)
North Dakota	3	3	(100.0)	0	(0.0)
Ohio	192	192	(100.0)	6	(3.1)
Oklahoma	87	85	(97.7)	5	(5.9)
Oregon	72	72	(100.0)	3	(4.2)
Pennsylvania	334	334	(100.0)	10	(3.0)
Rhode Island	32	32	(100.0)	0	(0.0)
South Carolina	169	169	(100.0)	2	(1.2)
South Dakota	8	8	(100.0)	0	(0.0)
Tennessee	267	267	(100.0)	14	(5.2)
Texas	1,404	1,404	(100.0)	158	(11.3)
Utah	26	26	(100.0)	0	(0.0)
Vermont	6	6	(100.0)	0	(0.0)
Virginia	283	283	(100.0)	4	(1.4)
Washington	205	204	(99.5)	8	(3.9)
West Virginia	27	27	(100.0)	0	(0.0)
Wisconsin	66	66	(100.0)	1	(1.5)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	2	(66.7)	...	...
Fed. States of Micronesia ³	145	142	(97.9)	0	(0.0)
Guam ³	65	65	(100.0)	2	(3.1)
Marshall Islands ³	102	102	(100.0)	2	(2.0)
N. Mariana Islands ³	34	34	(100.0)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	3	(3.2)
Republic of Palau ³	14	13	(92.9)	0	(0.0)
U.S. Virgin Islands ³	4	4	(100.0)	0	(0.0)

¹Resident of correctional facility at time of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

Table 30. Tuberculosis Cases and Percentages by Homeless Status,¹ Age ≥15: Reporting Areas, 2008

Reporting Area	Total Cases	Cases with Information on Homeless Status		Cases Reported As Being Homeless	
		No.	(%)	No.	(%)
United States	12,117	12,008	(99.1)	680	(5.7)
Alabama	168	168	(100.0)	7	(4.2)
Alaska	46	45	(97.8)	11	(24.4)
Arizona	198	176	(88.9)	14	(8.0)
Arkansas	76	76	(100.0)	4	(5.3)
California	2,540	2,527	(99.5)	160	(6.3)
Colorado	93	93	(100.0)	6	(6.5)
Connecticut	96	96	(100.0)	2	(2.1)
Delaware	21	21	(100.0)	0	(0.0)
District of Columbia	51	51	(100.0)	5	(9.8)
Florida	907	903	(99.6)	65	(7.2)
Georgia	436	429	(98.4)	49	(11.4)
Hawaii	122	122	(100.0)	1	(0.8)
Idaho	9	9	(100.0)	0	(0.0)
Illinois	455	440	(96.7)	17	(3.9)
Indiana	109	108	(99.1)	8	(7.4)
Iowa	48	48	(100.0)	2	(4.2)
Kansas	48	48	(100.0)	2	(4.2)
Kentucky	96	96	(100.0)	5	(5.2)
Louisiana	223	222	(99.6)	25	(11.3)
Maine	9	9	(100.0)	1	(11.1)
Maryland	266	266	(100.0)	9	(3.4)
Massachusetts	257	256	(99.6)	8	(3.1)
Michigan	181	173	(95.6)	12	(6.9)
Minnesota	180	180	(100.0)	11	(6.1)
Mississippi	109	109	(100.0)	15	(13.8)
Missouri	104	104	(100.0)	7	(6.7)
Montana	8	8	(100.0)	0	(0.0)
Nebraska	28	28	(100.0)	1	(3.6)
Nevada	90	90	(100.0)	7	(7.8)
New Hampshire	19	19	(100.0)	0	(0.0)
New Jersey	413	413	(100.0)	14	(3.4)
New Mexico	58	58	(100.0)	4	(6.9)
New York State ²	289	285	(98.6)	8	(2.8)
New York City	870	850	(97.7)	36	(4.2)
North Carolina	308	308	(100.0)	16	(5.2)
North Dakota	3	3	(100.0)	0	(0.0)
Ohio	192	191	(99.5)	11	(5.8)
Oklahoma	87	84	(96.6)	8	(9.5)
Oregon	72	72	(100.0)	7	(9.7)
Pennsylvania	334	329	(98.5)	5	(1.5)
Rhode Island	32	32	(100.0)	0	(0.0)
South Carolina	169	169	(100.0)	11	(6.5)
South Dakota	8	8	(100.0)	0	(0.0)
Tennessee	267	267	(100.0)	18	(6.7)
Texas	1,404	1,404	(100.0)	65	(4.6)
Utah	26	26	(100.0)	0	(0.0)
Vermont	6	6	(100.0)	0	(0.0)
Virginia	283	283	(100.0)	4	(1.4)
Washington	205	204	(99.5)	16	(7.8)
West Virginia	27	27	(100.0)	2	(7.4)
Wisconsin	66	64	(97.0)	1	(1.6)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	1	(33.3)	...	...
Fed. States of Micronesia ³	145	133	(91.7)	0	(0.0)
Guam ³	65	65	(100.0)	0	(0.0)
Marshall Islands ³	102	98	(96.1)	2	(2.0)
N. Mariana Islands ³	34	33	(97.1)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	5	(5.4)
Republic of Palau ³	14	13	(92.9)	0	(0.0)
U.S. Virgin Islands ³	4	4	(100.0)	0	(0.0)

¹Homeless within past 12 months of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 31. Tuberculosis Cases and Percentages by Residence in Long-term Care Facilities,¹
Age ≥15: Reporting Areas, 2008**

Reporting Area	Total Cases	Cases with Information on Residence in Long-term Care Facilities		Cases Reported As Residents of Long-term Care Facilities	
		No.	(%)	No.	(%)
United States	12,117	12,101	(99.9)	257	(2.1)
Alabama	168	167	(99.4)	4	(2.4)
Alaska	46	46	(100.0)	0	(0.0)
Arizona	198	198	(100.0)	6	(3.0)
Arkansas	76	76	(100.0)	5	(6.6)
California	2,540	2,540	(100.0)	57	(2.2)
Colorado	93	93	(100.0)	2	(2.2)
Connecticut	96	96	(100.0)	5	(5.2)
Delaware	21	21	(100.0)	0	(0.0)
District of Columbia	51	51	(100.0)	0	(0.0)
Florida	907	907	(100.0)	6	(0.7)
Georgia	436	435	(99.8)	8	(1.8)
Hawaii	122	122	(100.0)	0	(0.0)
Idaho	9	9	(100.0)	1	(11.1)
Illinois	455	453	(99.6)	14	(3.1)
Indiana	109	109	(100.0)	1	(0.9)
Iowa	48	48	(100.0)	2	(4.2)
Kansas	48	48	(100.0)	1	(2.1)
Kentucky	96	96	(100.0)	2	(2.1)
Louisiana	223	222	(99.6)	11	(5.0)
Maine	9	9	(100.0)	0	(0.0)
Maryland	266	266	(100.0)	10	(3.8)
Massachusetts	257	257	(100.0)	4	(1.6)
Michigan	181	173	(95.6)	11	(6.4)
Minnesota	180	180	(100.0)	3	(1.7)
Mississippi	109	109	(100.0)	5	(4.6)
Missouri	104	104	(100.0)	2	(1.9)
Montana	8	8	(100.0)	1	(12.5)
Nebraska	28	28	(100.0)	0	(0.0)
Nevada	90	90	(100.0)	1	(1.1)
New Hampshire	19	19	(100.0)	0	(0.0)
New Jersey	413	413	(100.0)	6	(1.5)
New Mexico	58	58	(100.0)	1	(1.7)
New York State ²	289	289	(100.0)	6	(2.1)
New York City	870	870	(100.0)	2	(0.2)
North Carolina	308	308	(100.0)	6	(1.9)
North Dakota	3	3	(100.0)	0	(0.0)
Ohio	192	192	(100.0)	8	(4.2)
Oklahoma	87	85	(97.7)	5	(5.9)
Oregon	72	72	(100.0)	0	(0.0)
Pennsylvania	334	334	(100.0)	13	(3.9)
Rhode Island	32	32	(100.0)	1	(3.1)
South Carolina	169	169	(100.0)	4	(2.4)
South Dakota	8	8	(100.0)	2	(25.0)
Tennessee	267	267	(100.0)	13	(4.9)
Texas	1,404	1,404	(100.0)	14	(1.0)
Utah	26	26	(100.0)	0	(0.0)
Vermont	6	6	(100.0)	0	(0.0)
Virginia	283	283	(100.0)	5	(1.8)
Washington	205	204	(99.5)	5	(2.5)
West Virginia	27	27	(100.0)	2	(7.4)
Wisconsin	66	66	(100.0)	2	(3.0)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	2	(66.7)	...	...
Fed. States of Micronesia ³	145	141	(97.2)	11	(7.8)
Guam ³	65	65	(100.0)	0	(0.0)
Marshall Islands ³	102	102	(100.0)	0	(0.0)
N. Mariana Islands ³	34	34	(100.0)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	0	(0.0)
Republic of Palau ³	14	13	(92.9)	0	(0.0)
U.S. Virgin Islands ³	4	4	(100.0)	0	(0.0)

¹Resident of long-term care facility at time of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 32. Tuberculosis Cases and Percentages by Injecting Drug Use,¹ Age ≥15:
Reporting Areas, 2008**

Reporting Area	Total Cases	Cases with Information on Injecting Drug Use		Cases Reporting Injecting Drug Use	
		No.	(%)	No.	(%)
United States	12,117	11,821	(97.6)	212	(1.8)
Alabama	168	167	(99.4)	1	(0.6)
Alaska	46	43	(93.5)	1	(2.3)
Arizona	198	167	(84.3)	6	(3.6)
Arkansas	76	76	(100.0)	0	(0.0)
California	2,540	2,482	(97.7)	37	(1.5)
Colorado	93	93	(100.0)	3	(3.2)
Connecticut	96	95	(99.0)	0	(0.0)
Delaware	21	21	(100.0)	0	(0.0)
District of Columbia	51	51	(100.0)	0	(0.0)
Florida	907	900	(99.2)	16	(1.8)
Georgia	436	428	(98.2)	9	(2.1)
Hawaii	122	54	(44.3)	...	...
Idaho	9	8	(88.9)	0	(0.0)
Illinois	455	422	(92.7)	10	(2.4)
Indiana	109	108	(99.1)	2	(1.9)
Iowa	48	48	(100.0)	0	(0.0)
Kansas	48	48	(100.0)	0	(0.0)
Kentucky	96	96	(100.0)	0	(0.0)
Louisiana	223	213	(95.5)	14	(6.6)
Maine	9	9	(100.0)	0	(0.0)
Maryland	266	264	(99.2)	6	(2.3)
Massachusetts	257	253	(98.4)	2	(0.8)
Michigan	181	173	(95.6)	8	(4.6)
Minnesota	180	180	(100.0)	3	(1.7)
Mississippi	109	109	(100.0)	0	(0.0)
Missouri	104	104	(100.0)	0	(0.0)
Montana	8	8	(100.0)	0	(0.0)
Nebraska	28	28	(100.0)	0	(0.0)
Nevada	90	89	(98.9)	1	(1.1)
New Hampshire	19	18	(94.7)	0	(0.0)
New Jersey	413	413	(100.0)	6	(1.5)
New Mexico	58	58	(100.0)	0	(0.0)
New York State ²	289	285	(98.6)	1	(0.4)
New York City	870	849	(97.6)	13	(1.5)
North Carolina	308	308	(100.0)	2	(0.6)
North Dakota	3	3	(100.0)	0	(0.0)
Ohio	192	191	(99.5)	3	(1.6)
Oklahoma	87	77	(88.5)	4	(5.2)
Oregon	72	72	(100.0)	3	(4.2)
Pennsylvania	334	326	(97.6)	3	(0.9)
Rhode Island	32	32	(100.0)	0	(0.0)
South Carolina	169	166	(98.2)	1	(0.6)
South Dakota	8	8	(100.0)	0	(0.0)
Tennessee	267	267	(100.0)	8	(3.0)
Texas	1,404	1,404	(100.0)	46	(3.3)
Utah	26	26	(100.0)	0	(0.0)
Vermont	6	6	(100.0)	0	(0.0)
Virginia	283	283	(100.0)	0	(0.0)
Washington	205	199	(97.1)	2	(1.0)
West Virginia	27	27	(100.0)	0	(0.0)
Wisconsin	66	61	(92.4)	1	(1.6)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	2	(66.7)	...	...
Fed. States of Micronesia ³	145	132	(91.0)	0	(0.0)
Guam ³	65	64	(98.5)	0	(0.0)
Marshall Islands ³	102	100	(98.0)	0	(0.0)
N. Mariana Islands ³	34	34	(100.0)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	15	(16.1)
Republic of Palau ³	14	13	(92.9)	0	(0.0)
U.S. Virgin Islands ³	4	4	(100.0)	0	(0.0)

¹Injecting drug use within past 12 months of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

Table 33. Tuberculosis Cases and Percentages by Noninjecting Drug Use,¹ Age ≥15: Reporting Areas, 2008

Reporting Area	Total Cases	Cases with Information on Noninjecting Drug Use		Cases Reporting Noninjecting Drug Use	
		No.	(%)	No.	(%)
United States	12,117	11,792	(97.3)	858	(7.3)
Alabama	168	166	(98.8)	19	(11.4)
Alaska	46	43	(93.5)	4	(9.3)
Arizona	198	166	(83.8)	12	(7.2)
Arkansas	76	76	(100.0)	0	(0.0)
California	2,540	2,474	(97.4)	175	(7.1)
Colorado	93	91	(97.8)	9	(9.9)
Connecticut	96	95	(99.0)	2	(2.1)
Delaware	21	21	(100.0)	1	(4.8)
District of Columbia	51	51	(100.0)	1	(2.0)
Florida	907	901	(99.3)	101	(11.2)
Georgia	436	428	(98.2)	52	(12.1)
Hawaii	122	53	(43.4)	...	...
Idaho	9	8	(88.9)	0	(0.0)
Illinois	455	415	(91.2)	27	(6.5)
Indiana	109	109	(100.0)	13	(11.9)
Iowa	48	48	(100.0)	2	(4.2)
Kansas	48	47	(97.9)	3	(6.4)
Kentucky	96	96	(100.0)	5	(5.2)
Louisiana	223	214	(96.0)	29	(13.6)
Maine	9	9	(100.0)	0	(0.0)
Maryland	266	263	(98.9)	9	(3.4)
Massachusetts	257	255	(99.2)	7	(2.7)
Michigan	181	169	(93.4)	14	(8.3)
Minnesota	180	180	(100.0)	8	(4.4)
Mississippi	109	109	(100.0)	12	(11.0)
Missouri	104	104	(100.0)	5	(4.8)
Montana	8	8	(100.0)	0	(0.0)
Nebraska	28	28	(100.0)	1	(3.6)
Nevada	90	89	(98.9)	7	(7.9)
New Hampshire	19	18	(94.7)	0	(0.0)
New Jersey	413	413	(100.0)	16	(3.9)
New Mexico	58	58	(100.0)	1	(1.7)
New York State ²	289	283	(97.9)	6	(2.1)
New York City	870	845	(97.1)	51	(6.0)
North Carolina	308	308	(100.0)	44	(14.3)
North Dakota	3	3	(100.0)	0	(0.0)
Ohio	192	190	(99.0)	14	(7.4)
Oklahoma	87	77	(88.5)	10	(13.0)
Oregon	72	72	(100.0)	7	(9.7)
Pennsylvania	334	326	(97.6)	24	(7.4)
Rhode Island	32	32	(100.0)	0	(0.0)
South Carolina	169	166	(98.2)	18	(10.8)
South Dakota	8	8	(100.0)	0	(0.0)
Tennessee	267	266	(99.6)	31	(11.7)
Texas	1,404	1,404	(100.0)	92	(6.6)
Utah	26	26	(100.0)	0	(0.0)
Vermont	6	6	(100.0)	1	(16.7)
Virginia	283	283	(100.0)	6	(2.1)
Washington	205	199	(97.1)	13	(6.5)
West Virginia	27	27	(100.0)	4	(14.8)
Wisconsin	66	61	(92.4)	1	(1.6)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	2	(66.7)	...	...
Fed. States of Micronesia ³	145	134	(92.4)	5	(3.7)
Guam ³	65	58	(89.2)	0	(0.0)
Marshall Islands ³	102	95	(93.1)	0	(0.0)
N. Mariana Islands ³	34	34	(100.0)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	21	(22.6)
Republic of Palau ³	14	12	(85.7)	1	(8.3)
U.S. Virgin Islands ³	4	4	(100.0)	0	(0.0)

¹Noninjecting drug use within past 12 months of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 34. Tuberculosis Cases and Percentages by Excess Alcohol Use,¹ Age ≥15:
Reporting Areas, 2008**

Reporting Area	Total Cases	Cases with Information on Excess Alcohol Use		Cases Reporting Excess Alcohol Use	
		No.	(%)	No.	(%)
United States	12,117	11,845	(97.8)	1,557	(13.1)
Alabama	168	167	(99.4)	31	(18.6)
Alaska	46	41	(89.1)	16	(39.0)
Arizona	198	168	(84.8)	28	(16.7)
Arkansas	76	76	(100.0)	3	(3.9)
California	2,540	2,486	(97.9)	257	(10.3)
Colorado	93	92	(98.9)	12	(13.0)
Connecticut	96	95	(99.0)	4	(4.2)
Delaware	21	21	(100.0)	1	(4.8)
District of Columbia	51	51	(100.0)	3	(5.9)
Florida	907	900	(99.2)	163	(18.1)
Georgia	436	428	(98.2)	100	(23.4)
Hawaii	122	92	(75.4)	8	(8.7)
Idaho	9	8	(88.9)	1	(12.5)
Illinois	455	414	(91.0)	39	(9.4)
Indiana	109	108	(99.1)	27	(25.0)
Iowa	48	48	(100.0)	6	(12.5)
Kansas	48	48	(100.0)	5	(10.4)
Kentucky	96	95	(99.0)	16	(16.8)
Louisiana	223	214	(96.0)	61	(28.5)
Maine	9	9	(100.0)	0	(0.0)
Maryland	266	263	(98.9)	22	(8.4)
Massachusetts	257	254	(98.8)	18	(7.1)
Michigan	181	168	(92.8)	32	(19.0)
Minnesota	180	180	(100.0)	14	(7.8)
Mississippi	109	109	(100.0)	19	(17.4)
Missouri	104	104	(100.0)	9	(8.7)
Montana	8	8	(100.0)	4	(50.0)
Nebraska	28	28	(100.0)	4	(14.3)
Nevada	90	90	(100.0)	13	(14.4)
New Hampshire	19	18	(94.7)	1	(5.6)
New Jersey	413	413	(100.0)	30	(7.3)
New Mexico	58	58	(100.0)	7	(12.1)
New York State ²	289	283	(97.9)	18	(6.4)
New York City	870	848	(97.5)	110	(13.0)
North Carolina	308	308	(100.0)	40	(13.0)
North Dakota	3	3	(100.0)	1	(33.3)
Ohio	192	190	(99.0)	20	(10.5)
Oklahoma	87	77	(88.5)	13	(16.9)
Oregon	72	72	(100.0)	8	(11.1)
Pennsylvania	334	326	(97.6)	27	(8.3)
Rhode Island	32	31	(96.9)	1	(3.2)
South Carolina	169	167	(98.8)	44	(26.3)
South Dakota	8	8	(100.0)	0	(0.0)
Tennessee	267	266	(99.6)	49	(18.4)
Texas	1,404	1,404	(100.0)	214	(15.2)
Utah	26	26	(100.0)	1	(3.8)
Vermont	6	6	(100.0)	1	(16.7)
Virginia	283	283	(100.0)	19	(6.7)
Washington	205	200	(97.6)	23	(11.5)
West Virginia	27	27	(100.0)	6	(22.2)
Wisconsin	66	61	(92.4)	8	(13.1)
Wyoming	5	5	(100.0)	0	(0.0)
American Samoa ³	3	2	(66.7)	...	...
Fed. States of Micronesia ³	145	128	(88.3)	3	(2.3)
Guam ³	65	65	(100.0)	0	(0.0)
Marshall Islands ³	102	88	(86.3)	15	(17.0)
N. Mariana Islands ³	34	31	(91.2)	0	(0.0)
Puerto Rico ³	93	93	(100.0)	12	(12.9)
Republic of Palau ³	14	12	(85.7)	2	(16.7)
U.S. Virgin Islands ³	4	4	(100.0)	1	(25.0)

¹Excess alcohol use within past 12 months of TB diagnosis. Percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 35. Tuberculosis Cases and Percentages by Initial Drug Regimen:
Reporting Areas, 2008**

Reporting Area	Total Cases	Cases in Persons Alive at Diagnosis	Cases with Information on Initial Drug Regimen		Percentage of Cases in Persons with Initial Drug Regimen ^{1,2}			
			No.	(%)	IR	IRZ	IRZ,E/S	IRZE ³
United States	12,904	12,650	12,616	(99.7)	(0.9)	(3.5)	(83.3)	(83.2)
Alabama	176	166	166	(100.0)	(0.0)	(6.0)	(86.1)	(86.1)
Alaska	50	50	49	(98.0)	(2.0)	(6.1)	(89.8)	(89.8)
Arizona	227	225	225	(100.0)	(2.2)	(5.3)	(63.1)	(62.7)
Arkansas	83	77	77	(100.0)	(16.9)	(18.2)	(50.6)	(50.6)
California	2,695	2,658	2,655	(99.9)	(0.4)	(2.1)	(88.7)	(88.7)
Colorado	103	101	101	(100.0)	(1.0)	(0.0)	(85.1)	(85.1)
Connecticut	98	97	97	(100.0)	(1.0)	(4.1)	(87.6)	(86.6)
Delaware	23	23	23	(100.0)	(0.0)	(8.7)	(91.3)	(91.3)
District of Columbia	54	54	53	(98.1)	(0.0)	(1.9)	(98.1)	(98.1)
Florida	954	920	920	(100.0)	(0.4)	(4.6)	(87.3)	(87.3)
Georgia	478	468	468	(100.0)	(0.0)	(5.6)	(58.5)	(58.1)
Hawaii	124	124	124	(100.0)	(2.4)	(4.8)	(77.4)	(77.4)
Idaho	11	11	11	(100.0)	(0.0)	(9.1)	(90.9)	(90.9)
Illinois	469	464	464	(100.0)	(0.4)	(3.2)	(79.7)	(79.7)
Indiana	118	116	116	(100.0)	(1.7)	(7.8)	(85.3)	(85.3)
Iowa	49	48	48	(100.0)	(0.0)	(4.2)	(91.7)	(91.7)
Kansas	57	57	57	(100.0)	(0.0)	(15.8)	(77.2)	(77.2)
Kentucky	101	98	98	(100.0)	(2.0)	(2.0)	(61.2)	(61.2)
Louisiana	227	220	220	(100.0)	(0.5)	(2.3)	(93.6)	(93.6)
Maine	9	9	9	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)
Maryland	278	273	273	(100.0)	(1.8)	(2.6)	(90.1)	(89.7)
Massachusetts	261	256	252	(98.4)	(0.4)	(0.8)	(84.1)	(84.1)
Michigan	188	178	178	(100.0)	(3.4)	(7.9)	(61.2)	(61.2)
Minnesota	211	210	210	(100.0)	(1.0)	(2.9)	(88.6)	(88.6)
Mississippi	118	111	111	(100.0)	(1.8)	(9.0)	(75.7)	(75.7)
Missouri	107	106	106	(100.0)	(0.0)	(4.7)	(67.0)	(67.0)
Montana	9	8	8	(100.0)	(0.0)	(0.0)	(87.5)	(87.5)
Nebraska	33	33	33	(100.0)	(0.0)	(15.2)	(78.8)	(78.8)
Nevada	102	102	102	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)
New Hampshire	19	19	19	(100.0)	(0.0)	(15.8)	(73.7)	(68.4)
New Jersey	422	417	417	(100.0)	(1.2)	(2.6)	(85.9)	(85.9)
New Mexico	60	57	57	(100.0)	(0.0)	(0.0)	(91.2)	(91.2)
New York State ⁴	305	299	299	(100.0)	(0.3)	(2.3)	(87.6)	(87.6)
New York City	895	890	890	(100.0)	(0.6)	(2.4)	(87.3)	(87.3)
North Carolina	335	327	327	(100.0)	(0.3)	(2.8)	(89.9)	(89.9)
North Dakota	3	3	3	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)
Ohio	213	209	209	(100.0)	(1.4)	(6.7)	(85.6)	(85.6)
Oklahoma	100	97	95	(97.9)	(5.3)	(15.8)	(68.4)	(68.4)
Oregon	75	74	74	(100.0)	(1.4)	(2.7)	(90.5)	(90.5)
Pennsylvania	387	375	374	(99.7)	(1.3)	(2.1)	(46.3)	(46.3)
Rhode Island	36	36	36	(100.0)	(2.8)	(0.0)	(86.1)	(86.1)
South Carolina	188	180	180	(100.0)	(1.7)	(6.7)	(84.4)	(84.4)
South Dakota	16	16	16	(100.0)	(0.0)	(43.8)	(50.0)	(50.0)
Tennessee	282	274	274	(100.0)	(0.0)	(3.6)	(65.3)	(65.3)
Texas	1,501	1,467	1,447	(98.6)	(1.3)	(2.6)	(89.6)	(89.6)
Utah	27	26	26	(100.0)	(0.0)	(3.8)	(92.3)	(92.3)
Vermont	6	5	5	(100.0)	(0.0)	(0.0)	(80.0)	(80.0)
Virginia	292	291	289	(99.3)	(0.3)	(3.8)	(88.6)	(88.6)
Washington	228	226	226	(100.0)	(0.9)	(2.2)	(88.5)	(88.5)
West Virginia	28	26	26	(100.0)	(0.0)	(3.8)	(92.3)	(92.3)
Wisconsin	68	68	68	(100.0)	(0.0)	(2.9)	(85.3)	(85.3)
Wyoming	5	5	5	(100.0)	(0.0)	(20.0)	(80.0)	(80.0)
American Samoa ⁵	3	3	3	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)
Fed. States of Micronesia ⁵	182	181	176	(97.2)	(0.0)	(9.1)	(69.3)	(69.3)
Guam ⁵	90	90	90	(100.0)	(0.0)	(18.9)	(76.7)	(76.7)
Marshall Islands ⁵	125	121	120	(99.2)	(0.0)	(5.0)	(94.2)	(94.2)
N. Mariana Islands ⁵	34	34	34	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)
Puerto Rico ⁵	95	86	86	(100.0)	(0.0)	(1.2)	(96.5)	(96.5)
Republic of Palau ⁵	17	17	16	(94.1)	(0.0)	(12.5)	(81.3)	(81.3)
U.S. Virgin Islands ⁵	4	4	4	(100.0)	(0.0)	(0.0)	(100.0)	(100.0)

¹Overall U.S. percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

²I=isoniazid; R=rifampin; Z=pyrazinamide; E=ethambutol; S=streptomycin.

³Streptomycin is no longer considered a first-line drug. CDC. Treatment of Tuberculosis. American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No.RR-11): 1–77.

⁴Excludes New York City.

⁵Not included in U.S. totals.

Note: Excluding cases with no information on drug regimen, 140 (1.11%) persons were not started on any drugs, 20 (0.16%) were started on one drug, and 1,392 (11.03%) had an initial multidrug regimen other than IR, IRZ, or IRZ,E/S.

Table 36. Culture-Positive Tuberculosis Cases and Percentages with Drug-Susceptibility Results, by Resistance to INH or Multidrug Resistance: Reporting Areas, 2008

Reporting Area	Total Culture Positive Cases	Cases with Initial Drug-Susceptibility Testing Performed ¹		Resistance ²			
				Isoniazid ¹		Isoniazid and Rifampin ¹	
		No.	(%)	No.	(%)	No.	(%)
United States	10,030	9,365	(93.4)	782	(8.4)	103	(1.1)
Alabama	149	140	(94.0)	3	(2.1)	0	(0.0)
Alaska	45	43	(95.6)	1	(2.3)	0	(0.0)
Arizona	158	152	(96.2)	6	(3.9)	0	(0.0)
Arkansas	67	63	(94.0)	3	(4.8)	0	(0.0)
California	2,158	2,051	(95.0)	216	(10.5)	30	(1.5)
Colorado	66	66	(100.0)	8	(12.1)	0	(0.0)
Connecticut	84	84	(100.0)	12	(14.3)	2	(2.4)
Delaware	16	16	(100.0)	0	(0.0)	0	(0.0)
District of Columbia	44	44	(100.0)	2	(4.5)	0	(0.0)
Florida	765	717	(93.7)	54	(7.5)	5	(0.7)
Georgia	353	344	(97.5)	32	(9.3)	1	(0.3)
Hawaii	99	97	(98.0)	11	(11.3)	0	(0.0)
Idaho	9	8	(88.9)	0	(0.0)	0	(0.0)
Illinois	367	343	(93.5)	35	(10.2)	2	(0.6)
Indiana	97	94	(96.9)	2	(2.1)	0	(0.0)
Iowa	39	35	(89.7)	4	(11.4)	0	(0.0)
Kansas	44	38	(86.4)	5	(13.2)	0	(0.0)
Kentucky	85	74	(87.1)	5	(6.8)	1	(1.4)
Louisiana	186	170	(91.4)	9	(5.3)	0	(0.0)
Maine	6	6	(100.0)	0	(0.0)	0	(0.0)
Maryland	218	218	(100.0)	19	(8.7)	4	(1.8)
Massachusetts	198	190	(96.0)	18	(9.5)	3	(1.6)
Michigan	159	156	(98.1)	10	(6.4)	2	(1.3)
Minnesota	149	149	(100.0)	17	(11.4)	2	(1.3)
Mississippi	86	81	(94.2)	2	(2.5)	1	(1.2)
Missouri	86	86	(100.0)	5	(5.8)	0	(0.0)
Montana	8	8	(100.0)	2	(25.0)	0	(0.0)
Nebraska	26	24	(92.3)	3	(12.5)	0	(0.0)
Nevada	69	67	(97.1)	7	(10.4)	1	(1.5)
New Hampshire	15	15	(100.0)	3	(20.0)	0	(0.0)
New Jersey	323	320	(99.1)	34	(10.6)	8	(2.5)
New Mexico	50	49	(98.0)	3	(6.1)	0	(0.0)
New York State ³	230	226	(98.3)	21	(9.3)	1	(0.4)
New York City	688	668	(97.1)	61	(9.1)	11	(1.6)
North Carolina	249	248	(99.6)	15	(6.0)	1	(0.4)
North Dakota	2	2	(100.0)	0	(0.0)	0	(0.0)
Ohio	157	155	(98.7)	10	(6.5)	1	(0.6)
Oklahoma	81	78	(96.3)	3	(3.8)	0	(0.0)
Oregon	66	66	(100.0)	3	(4.5)	0	(0.0)
Pennsylvania	263	171	(65.0)	...	...	...	...
Rhode Island	23	23	(100.0)	2	(8.7)	0	(0.0)
South Carolina	133	127	(95.5)	6	(4.7)	2	(1.6)
South Dakota	7	7	(100.0)	0	(0.0)	0	(0.0)
Tennessee	195	190	(97.4)	6	(3.2)	0	(0.0)
Texas	1,183	977	(82.6)	74	(7.6)	14	(1.4)
Utah	23	23	(100.0)	1	(4.3)	1	(4.3)
Vermont	3	3	(100.0)	0	(0.0)	0	(0.0)
Virginia	227	191	(84.1)	15	(7.9)	1	(0.5)
Washington	188	184	(97.9)	14	(7.6)	4	(2.2)
West Virginia	25	24	(96.0)	0	(0.0)	0	(0.0)
Wisconsin	60	51	(85.0)	4	(7.8)	1	(2.0)
Wyoming	3	3	(100.0)	0	(0.0)	0	(0.0)
American Samoa ⁴	...	...	...	...	...	...	...
Fed. States of Micronesia ⁴	35	15	(42.9)	...	...	...	...
Guam ⁴	36	33	(91.7)	1	(3.0)	0	(0.0)
Marshall Islands ⁴	36	33	(91.7)	1	(3.0)	0	(0.0)
N. Mariana Islands ⁴	12	7	(58.3)	--	--	--	--
Puerto Rico ⁴	90	90	(100.0)	5	(5.6)	1	(1.1)
Republic of Palau ⁴	8	5	(62.5)	...	...	...	...
U.S. Virgin Islands ⁴	3	0	(0.0)	--	--	--	--

¹Patients tested to at least isoniazid and rifampin

²Isolates may be resistant to other drugs. Overall U.S. percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Counts and percentages shown only for reporting areas with information reported for ≥75% of cases.

³Excludes New York City.

⁴Not included in U.S. totals.

Note: Ellipses indicate data not available.

Table 37. Tuberculosis Cases and Percentages Among Persons Aged 25–44 by HIV Status: Reporting Areas, 2008

Reporting Area	Total Cases	Cases with Information on HIV Status ¹		Cases in Persons with HIV-Positive Results ²	
		No.	(%)	No.	(%)
United States	4,242	3,036	(71.6)	--	--
Alabama	44	42	(95.5)	2	(4.8)
Alaska	17	13	(76.5)	0	(0.0)
Arizona	79	68	(86.1)	5	(7.4)
Arkansas	16	14	(87.5)	3	(21.4)
California	812	0	(0.0)	...	...
Colorado	33	32	(97.0)	2	(6.3)
Connecticut	40	29	(72.5)	...	...
Delaware	13	11	(84.6)	1	(9.1)
District of Columbia	16	16	(100.0)	4	(25.0)
Florida	278	256	(92.1)	69	(27.0)
Georgia	177	167	(94.4)	25	(15.0)
Hawaii	25	15	(60.0)	...	...
Idaho	1	1	(100.0)	0	(0.0)
Illinois	166	152	(91.6)	17	(11.2)
Indiana	33	26	(78.8)	2	(7.7)
Iowa	20	20	(100.0)	0	(0.0)
Kansas	20	20	(100.0)	1	(5.0)
Kentucky	27	26	(96.3)	1	(3.8)
Louisiana	74	62	(83.8)	11	(17.7)
Maine	3	3	(100.0)	0	(0.0)
Maryland	103	99	(96.1)	21	(21.2)
Massachusetts	97	70	(72.2)	...	...
Michigan	58	47	(81.0)	5	(10.6)
Minnesota	72	67	(93.1)	8	(11.9)
Mississippi	32	32	(100.0)	5	(15.6)
Missouri	38	35	(92.1)	3	(8.6)
Montana	2	2	(100.0)	0	(0.0)
Nebraska	12	9	(75.0)	0	(0.0)
Nevada	29	29	(100.0)	2	(6.9)
New Hampshire	5	5	(100.0)	0	(0.0)
New Jersey	176	147	(83.5)	16	(10.9)
New Mexico	12	11	(91.7)	2	(18.2)
New York State ³	109	100	(91.7)	7	(7.0)
New York City	318	268	(84.3)	44	(16.4)
North Carolina	119	114	(95.8)	17	(14.9)
North Dakota	1	1	(100.0)	0	(0.0)
Ohio	70	63	(90.0)	0	(0.0)
Oklahoma	30	30	(100.0)	3	(10.0)
Oregon	29	27	(93.1)	2	(7.4)
Pennsylvania	104	86	(82.7)	11	(12.8)
Rhode Island	12	9	(75.0)	2	(22.2)
South Carolina	59	55	(93.2)	8	(14.5)
South Dakota	4	3	(75.0)	0	(0.0)
Tennessee	94	94	(100.0)	12	(12.8)
Texas	540	469	(86.9)	77	(16.4)
Utah	6	6	(100.0)	0	(0.0)
Vermont	1	0	(0.0)	--	--
Virginia	101	86	(85.1)	3	(3.5)
Washington	81	73	(90.1)	5	(6.8)
West Virginia	6	3	(50.0)	...	...
Wisconsin	25	21	(84.0)	3	(14.3)
Wyoming	3	2	(66.7)	...	...
American Samoa ⁴	1	0	(0.0)	--	--
Fed. States of Micronesia ⁴	54	24	(44.4)	...	...
Guam ⁴	17	16	(94.1)	2	(12.5)
Marshall Islands ⁴	36	21	(58.3)	...	...
N. Mariana Islands ⁴	14	14	(100.0)	0	(0.0)
Puerto Rico ⁴	24	24	(100.0)	10	(41.7)
Republic of Palau ⁴	4	4	(100.0)	0	(0.0)
U.S. Virgin Islands ⁴	2	2	(100.0)	1	(50.0)

¹Includes only those cases in persons with negative, positive, or indeterminate HIV test results.

²Counts and percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases. All 2008 California and Vermont cases had an unknown HIV status because these HIV data were not available at time of publication.

³Excludes New York City.

⁴Not included in U.S. totals.

Note: Ellipses indicate data not available.

See Technical Notes (page 9).

**Table 38. Tuberculosis Cases and Percentages by Occupation, Age ≥15:
Reporting Areas, 2008**

Reporting Area	Total Cases	Cases with Information on Occupation		Percentage of Cases by Occupation ¹					
		No.	(%)	Unemployed Past 24 Mos.	Health Care Worker	Correctional Employee	Migrant Worker	Other Occupation	Multiple Occupations
United States	12,117	11,528	(95.1)	(52.5)	(3.4)	(0.1)	(1.2)	(42.7)	(0.1)
Alabama	168	166	(98.8)	(61.4)	(3.0)	(0.0)	(1.8)	(33.7)	(0.0)
Alaska	46	38	(82.6)	(71.1)	(2.6)	(0.0)	(0.0)	(23.7)	(2.6)
Arizona	198	159	(80.3)	(60.4)	(2.5)	(0.0)	(4.4)	(32.1)	(0.6)
Arkansas	76	44	(57.9)	...	...	...	...	...	...
California	2,540	2,439	(96.0)	(56.4)	(3.4)	(0.1)	(1.7)	(38.3)	(0.0)
Colorado	93	91	(97.8)	(45.1)	(1.1)	(0.0)	(2.2)	(51.6)	(0.0)
Connecticut	96	96	(100.0)	(41.7)	(3.1)	(0.0)	(1.0)	(54.2)	(0.0)
Delaware	21	21	(100.0)	(23.8)	(14.3)	(0.0)	(4.8)	(57.1)	(0.0)
District of Columbia	51	51	(100.0)	(92.2)	(0.0)	(0.0)	(0.0)	(7.8)	(0.0)
Florida	907	905	(99.8)	(57.9)	(2.9)	(0.1)	(2.4)	(36.7)	(0.0)
Georgia	436	354	(81.2)	(35.3)	(2.5)	(0.3)	(1.7)	(60.2)	(0.0)
Hawaii	122	96	(78.7)	(43.8)	(6.3)	(0.0)	(0.0)	(50.0)	(0.0)
Idaho	9	9	(100.0)	(55.6)	(0.0)	(0.0)	(0.0)	(44.4)	(0.0)
Illinois	455	428	(94.1)	(47.4)	(4.9)	(0.0)	(0.2)	(47.4)	(0.0)
Indiana	109	107	(98.2)	(58.9)	(3.7)	(0.0)	(0.0)	(37.4)	(0.0)
Iowa	48	48	(100.0)	(50.0)	(6.3)	(0.0)	(0.0)	(41.7)	(2.1)
Kansas	48	46	(95.8)	(34.8)	(8.7)	(0.0)	(0.0)	(56.5)	(0.0)
Kentucky	96	95	(99.0)	(42.1)	(3.2)	(0.0)	(5.3)	(49.5)	(0.0)
Louisiana	223	200	(89.7)	(56.0)	(1.5)	(0.0)	(1.0)	(41.5)	(0.0)
Maine	9	9	(100.0)	(33.3)	(11.1)	(0.0)	(0.0)	(55.6)	(0.0)
Maryland	266	264	(99.2)	(43.2)	(3.4)	(0.4)	(0.0)	(51.9)	(1.1)
Massachusetts	257	253	(98.4)	(49.0)	(5.5)	(0.0)	(0.4)	(44.7)	(0.4)
Michigan	181	39	(21.5)	...	...	...	...	...	...
Minnesota	180	180	(100.0)	(60.0)	(1.7)	(1.7)	(0.0)	(36.7)	(0.0)
Mississippi	109	109	(100.0)	(59.6)	(2.8)	(0.0)	(0.0)	(36.7)	(0.9)
Missouri	104	104	(100.0)	(49.0)	(10.6)	(0.0)	(0.0)	(40.4)	(0.0)
Montana	8	8	(100.0)	(75.0)	(12.5)	(0.0)	(0.0)	(12.5)	(0.0)
Nebraska	28	28	(100.0)	(53.6)	(0.0)	(0.0)	(0.0)	(46.4)	(0.0)
Nevada	90	90	(100.0)	(38.9)	(2.2)	(0.0)	(0.0)	(57.8)	(1.1)
New Hampshire	19	18	(94.7)	(44.4)	(5.6)	(0.0)	(0.0)	(50.0)	(0.0)
New Jersey	413	413	(100.0)	(48.7)	(5.1)	(0.5)	(1.2)	(44.3)	(0.2)
New Mexico	58	58	(100.0)	(55.2)	(3.4)	(0.0)	(1.7)	(39.7)	(0.0)
New York State ²	289	277	(95.8)	(50.9)	(3.2)	(0.0)	(0.4)	(45.1)	(0.4)
New York City	870	842	(96.8)	(47.7)	(3.0)	(0.1)	(0.0)	(49.0)	(0.1)
North Carolina	308	308	(100.0)	(33.8)	(1.9)	(0.6)	(1.9)	(61.7)	(0.0)
North Dakota	3	3	(100.0)	(66.7)	(0.0)	(0.0)	(0.0)	(33.3)	(0.0)
Ohio	192	189	(98.4)	(52.4)	(3.2)	(0.0)	(1.1)	(43.4)	(0.0)
Oklahoma	87	57	(65.5)	...	...	...	...	...	...
Oregon	72	72	(100.0)	(44.4)	(1.4)	(0.0)	(1.4)	(52.8)	(0.0)
Pennsylvania	334	332	(99.4)	(37.0)	(3.0)	(0.0)	(0.3)	(59.6)	(0.0)
Rhode Island	32	31	(96.9)	(48.4)	(6.5)	(0.0)	(0.0)	(45.2)	(0.0)
South Carolina	169	169	(100.0)	(56.2)	(1.8)	(0.0)	(1.8)	(40.2)	(0.0)
South Dakota	8	8	(100.0)	(87.5)	(12.5)	(0.0)	(0.0)	(0.0)	(0.0)
Tennessee	267	265	(99.3)	(57.0)	(3.0)	(0.0)	(1.9)	(37.7)	(0.4)
Texas	1,404	1,403	(99.9)	(62.7)	(3.1)	(0.2)	(0.2)	(33.7)	(0.1)
Utah	26	26	(100.0)	(61.5)	(3.8)	(0.0)	(0.0)	(34.6)	(0.0)
Vermont	6	6	(100.0)	(50.0)	(16.7)	(0.0)	(0.0)	(33.3)	(0.0)
Virginia	283	283	(100.0)	(53.7)	(2.1)	(0.0)	(0.0)	(44.2)	(0.0)
Washington	205	195	(95.1)	(42.6)	(5.6)	(0.0)	(2.6)	(48.2)	(1.0)
West Virginia	27	27	(100.0)	(51.9)	(7.4)	(0.0)	(0.0)	(40.7)	(0.0)
Wisconsin	66	64	(97.0)	(35.9)	(4.7)	(0.0)	(1.6)	(57.8)	(0.0)
Wyoming	5	5	(100.0)	(0.0)	(20.0)	(0.0)	(0.0)	(80.0)	(0.0)
American Samoa ³	3	1	(33.3)	...	...	...	...	...	...
Fed. States of Micronesia ³	145	120	(82.8)	(81.7)	(1.7)	(0.0)	(0.0)	(16.7)	(0.0)
Guam ³	65	57	(87.7)	(63.2)	(1.8)	(0.0)	(0.0)	(35.1)	(0.0)
Marshall Islands ³	102	97	(95.1)	(50.5)	(0.0)	(0.0)	(0.0)	(49.5)	(0.0)
N. Mariana Islands ³	34	32	(94.1)	(28.1)	(0.0)	(0.0)	(0.0)	(71.9)	(0.0)
Puerto Rico ³	93	93	(100.0)	(80.6)	(0.0)	(0.0)	(0.0)	(19.4)	(0.0)
Republic of Palau ³	14	13	(92.9)	(38.5)	(7.7)	(7.7)	(0.0)	(46.2)	(0.0)
U.S. Virgin Islands ³	4	4	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(0.0)

¹Occupation within past 24 months of TB diagnosis. Overall U.S. percentage based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for ≥75% of cases.

²Excludes New York City.

³Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 39. Tuberculosis Cases and Percentages by Type of Health Care Provider:
Reporting Areas, 2006¹**

Reporting Area	Total Cases	Cases in Persons Alive at Diagnosis	Cases with Information on Type of Health Care Provider		Percentage of Cases by Type of Health Care Provider ²		
			No.	(%)	Health Department	Private/ Other	Both Health Department and Private/Other
United States	13,727	13,405	13,269	(99.0)	(60.0)	(18.4)	(21.6)
Alabama	196	192	184	(95.8)	(76.1)	(7.1)	(16.8)
Alaska	70	68	68	(100.0)	(17.6)	(1.5)	(80.9)
Arizona	313	306	274	(89.5)	(77.7)	(12.4)	(9.9)
Arkansas	103	100	100	(100.0)	(94.0)	(6.0)	(0.0)
California	2,777	2,713	2,690	(99.2)	(51.3)	(30.3)	(18.4)
Colorado	124	121	121	(100.0)	(73.6)	(4.1)	(22.3)
Connecticut	89	85	85	(100.0)	(12.9)	(38.8)	(48.2)
Delaware	29	28	28	(100.0)	(78.6)	(7.1)	(14.3)
District of Columbia	72	72	72	(100.0)	(66.7)	(26.4)	(6.9)
Florida	1,032	1,008	1,002	(99.4)	(75.2)	(9.3)	(15.5)
Georgia	507	491	476	(96.9)	(67.9)	(9.5)	(22.7)
Hawaii	114	114	114	(100.0)	(39.5)	(14.0)	(46.5)
Idaho	20	20	20	(100.0)	(35.0)	(35.0)	(30.0)
Illinois	563	562	551	(98.0)	(39.4)	(31.0)	(29.6)
Indiana	124	122	122	(100.0)	(33.6)	(3.3)	(63.1)
Iowa	40	39	39	(100.0)	(0.0)	(0.0)	(100.0)
Kansas	82	77	77	(100.0)	(49.4)	(10.4)	(40.3)
Kentucky	84	83	81	(97.6)	(63.0)	(9.9)	(27.2)
Louisiana	205	195	191	(97.9)	(64.9)	(12.6)	(22.5)
Maine	16	16	16	(100.0)	(100.0)	(0.0)	(0.0)
Maryland	252	243	243	(100.0)	(86.8)	(7.0)	(6.2)
Massachusetts	259	257	256	(99.6)	(38.7)	(9.4)	(52.0)
Michigan	221	218	211	(96.8)	(57.3)	(14.7)	(28.0)
Minnesota	217	213	213	(100.0)	(59.2)	(37.6)	(3.3)
Mississippi	115	110	110	(100.0)	(92.7)	(6.4)	(0.9)
Missouri	104	102	101	(99.0)	(24.8)	(19.8)	(55.4)
Montana	13	12	11	(91.7)	(45.5)	(0.0)	(54.5)
Nebraska	25	24	24	(100.0)	(0.0)	(33.3)	(66.7)
Nevada	101	100	99	(99.0)	(83.8)	(10.1)	(6.1)
New Hampshire	17	17	17	(100.0)	(5.9)	(11.8)	(82.4)
New Jersey	508	497	497	(100.0)	(70.8)	(25.6)	(3.6)
New Mexico	48	46	46	(100.0)	(47.8)	(19.6)	(32.6)
New York State ³	315	309	295	(95.5)	(59.7)	(25.8)	(14.6)
New York City	948	932	932	(100.0)	(36.7)	(20.8)	(42.5)
North Carolina	374	367	367	(100.0)	(69.2)	(3.8)	(27.0)
North Dakota	10	10	10	(100.0)	(0.0)	(20.0)	(80.0)
Ohio	239	234	234	(100.0)	(61.1)	(17.1)	(21.8)
Oklahoma	144	141	141	(100.0)	(95.0)	(1.4)	(3.5)
Oregon	81	78	78	(100.0)	(50.0)	(9.0)	(41.0)
Pennsylvania	341	333	332	(99.7)	(79.2)	(19.0)	(1.8)
Rhode Island	26	26	26	(100.0)	(92.3)	(3.8)	(3.8)
South Carolina	222	213	213	(100.0)	(79.3)	(6.6)	(14.1)
South Dakota	14	14	14	(100.0)	(78.6)	(0.0)	(21.4)
Tennessee	277	269	268	(99.6)	(51.1)	(9.3)	(39.6)
Texas	1,563	1,513	1,513	(100.0)	(68.3)	(19.5)	(12.2)
Utah	34	34	34	(100.0)	(58.8)	(5.9)	(35.3)
Vermont	8	7	7	(100.0)	(28.6)	(42.9)	(28.6)
Virginia	332	321	320	(99.7)	(79.7)	(12.8)	(7.5)
Washington	262	257	257	(100.0)	(68.1)	(8.2)	(23.7)
West Virginia	22	22	17	(77.3)	(29.4)	(11.8)	(58.8)
Wisconsin	71	70	68	(97.1)	(0.0)	(0.0)	(100.0)
Wyoming	4	4	4	(100.0)	(0.0)	(25.0)	(75.0)
American Samoa ⁴	2	2	1	(50.0)	...	...	...
Fed. States of Micronesia ⁴	82	79	22	(27.8)	...	...	...
Guam ⁴	54	54	50	(92.6)	(70.0)	(0.0)	(30.0)
Marshall Islands ⁴	27	27	7	(25.9)	...	...	...
N. Mariana Islands ⁴	48	46	39	(84.8)	(97.4)	(2.6)	(0.0)
Puerto Rico ⁴	112	105	105	(100.0)	(84.8)	(10.5)	(4.8)
Republic of Palau ⁴	10	10	10	(100.0)	(100.0)	(0.0)	(0.0)
U.S. Virgin Islands ⁴	...	...	0	...	...	...	...

¹Most recent year for which data are available.

²Health Department: All outpatient care provided by the state or local health department; Private/Other: All care (except contact investigation and dispensing of medication) provided by non-health department providers; Both Health Department and Private/Other: Both sectors involved in the care of the patient. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

³Excludes New York City.

⁴Not included in U.S. totals.

Note: Ellipses indicate data not available.

**Table 40. Tuberculosis Cases and Percentages by Directly Observed Therapy (DOT):
Reporting Areas, 2006¹**

Reporting Area	Total Cases	Cases with Initial Drug Regimen Prescribed ²	Cases with Information on Directly Observed Therapy		Percentage of Cases by Directly Observed Therapy ³	
			No.	(%)	DOT Only	Both DOT and Self-Administered
United States	13,727	13,306	13,203	(99.2)	(57.5)	(30.4)
Alabama	196	190	189	(99.5)	(19.6)	(80.4)
Alaska	70	68	68	(100.0)	(97.1)	(2.9)
Arizona	313	300	275	(91.7)	(81.8)	(13.8)
Arkansas	103	100	99	(99.0)	(10.1)	(44.4)
California	2,777	2,675	2,650	(99.1)	(61.5)	(22.3)
Colorado	124	121	121	(100.0)	(91.7)	(5.0)
Connecticut	89	85	85	(100.0)	(28.2)	(44.7)
Delaware	29	28	28	(100.0)	(82.1)	(17.9)
District of Columbia	72	72	72	(100.0)	(51.4)	(22.2)
Florida	1,032	997	990	(99.3)	(47.1)	(48.1)
Georgia	507	488	481	(98.6)	(74.8)	(20.2)
Hawaii	114	114	114	(100.0)	(2.6)	(74.6)
Idaho	20	19	19	(100.0)	(21.1)	(47.4)
Illinois	563	552	549	(99.5)	(52.3)	(16.8)
Indiana	124	122	122	(100.0)	(61.5)	(36.1)
Iowa	40	39	39	(100.0)	(69.2)	(20.5)
Kansas	82	77	77	(100.0)	(89.6)	(10.4)
Kentucky	84	83	81	(97.6)	(50.6)	(46.9)
Louisiana	205	195	193	(99.0)	(86.5)	(7.8)
Maine	16	16	16	(100.0)	(93.8)	(6.3)
Maryland	252	243	243	(100.0)	(94.7)	(4.1)
Massachusetts	259	257	257	(100.0)	(33.5)	(45.9)
Michigan	221	218	211	(96.8)	(32.2)	(34.6)
Minnesota	217	212	212	(100.0)	(81.1)	(17.0)
Mississippi	115	110	110	(100.0)	(30.9)	(69.1)
Missouri	104	102	102	(100.0)	(41.2)	(45.1)
Montana	13	12	11	(91.7)	(54.5)	(36.4)
Nebraska	25	24	24	(100.0)	(58.3)	(0.0)
Nevada	101	100	99	(99.0)	(90.9)	(8.1)
New Hampshire	17	17	17	(100.0)	(88.2)	(5.9)
New Jersey	508	495	495	(100.0)	(49.9)	(19.4)
New Mexico	48	46	46	(100.0)	(80.4)	(19.6)
New York State ⁴	315	309	308	(99.7)	(21.4)	(73.1)
New York City	948	921	921	(100.0)	(1.7)	(67.0)
North Carolina	374	363	363	(100.0)	(98.3)	(1.4)
North Dakota	10	10	10	(100.0)	(30.0)	(50.0)
Ohio	239	234	233	(99.6)	(70.8)	(19.3)
Oklahoma	144	140	140	(100.0)	(98.6)	(0.0)
Oregon	81	78	77	(98.7)	(70.1)	(24.7)
Pennsylvania	341	333	329	(98.8)	(41.9)	(43.5)
Rhode Island	26	26	26	(100.0)	(7.7)	(88.5)
South Carolina	222	213	213	(100.0)	(92.0)	(6.6)
South Dakota	14	14	14	(100.0)	(57.1)	(35.7)
Tennessee	277	268	268	(100.0)	(94.0)	(5.2)
Texas	1,563	1,513	1,513	(100.0)	(64.8)	(33.0)
Utah	34	34	34	(100.0)	(91.2)	(8.8)
Vermont	8	7	7	(100.0)	(28.6)	(28.6)
Virginia	332	319	312	(97.8)	(70.5)	(27.2)
Washington	262	254	253	(99.6)	(75.1)	(17.4)
West Virginia	22	20	15	(75.0)	(53.3)	(40.0)
Wisconsin	71	69	68	(98.6)	(64.7)	(27.9)
Wyoming	4	4	4	(100.0)	(50.0)	(25.0)
American Samoa ⁵	2	2	2	(100.0)	(100.0)	(0.0)
Fed. States of Micronesia ⁵	82	77	22	(28.6)	...	...
Guam ⁵	54	54	51	(94.4)	(0.0)	(98.0)
Marshall Islands ⁵	27	27	7	(25.9)	...	...
N. Mariana Islands ⁵	48	45	39	(86.7)	(87.2)	(12.8)
Puerto Rico ⁵	112	104	104	(100.0)	(74.0)	(0.0)
Republic of Palau ⁵	10	10	10	(100.0)	(30.0)	(50.0)
U.S. Virgin Islands ⁵	...	...	...	...	...	...

¹Most recent year for which data are available.

²Includes persons alive at diagnosis with an initial drug regimen of one or more drugs prescribed.

³Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

⁴Excludes New York City.

⁵Not included in U.S. totals.

Note: Ellipses indicate data not available.

Table 41. Tuberculosis Cases and Percentages by Completion of Tuberculosis Therapy (COT): Reporting Areas, 2006¹

Reporting Area	Total Cases	Therapy ≤1 Year Indicated ²			Therapy >1 Year Indicated ³		All Drug Therapy	
		No. ⁴	COT ≤1 Year(%)	COT(%)	No. ⁴	COT(%)	No. ⁴	COT(%)
United States	13,727	12036	(83.5)	(92.5)	339	(86.7)	12375	(92.3)
Alabama	196	165	(86.7)	(92.7)	6	(100.0)	171	(93.0)
Alaska	70	63	(90.5)	(95.2)	1	(100.0)	64	(95.3)
Arizona	313	273	(76.9)	(83.2)	6	(66.7)	279	(82.8)
Arkansas	103	90	(90.0)	(92.2)	0	--	90	(92.2)
California	2,777	2399	(80.7)	(92.9)	79	(86.1)	2478	(92.7)
Colorado	124	108	(88.9)	(95.4)	7	(100.0)	115	(95.7)
Connecticut	89	77	(87.0)	(94.8)	5	(100.0)	82	(95.1)
Delaware	29	24	(83.3)	(95.8)	1	(100.0)	25	(96.0)
District of Columbia	72	64	(70.3)	(82.8)	1	(100.0)	65	(83.1)
Florida	1,032	918	(89.3)	(95.3)	13	(84.6)	931	(95.2)
Georgia	507	444	(82.4)	(92.1)	13	(92.3)	457	(92.1)
Hawaii	114	101	(79.2)	(94.1)	2	(50.0)	103	(93.2)
Idaho	20	18	(77.8)	(100.0)	0	--	18	(100.0)
Illinois	563	500	(78.8)	(87.0)	11	(81.8)	511	(86.9)
Indiana	124	116	(90.5)	(94.8)	1	(100.0)	117	(94.9)
Iowa	40	37	(86.5)	(94.6)	1	(100.0)	38	(94.7)
Kansas	82	73	(93.2)	(98.6)	2	(100.0)	75	(98.7)
Kentucky	84	75	(82.7)	(89.3)	0	--	75	(89.3)
Louisiana	205	178	(77.0)	(89.3)	1	(100.0)	179	(89.4)
Maine	16	13	(100.0)	(100.0)	0	--	13	(100.0)
Maryland	252	226	(90.7)	(95.6)	5	(100.0)	231	(95.7)
Massachusetts	259	240	(86.3)	(93.3)	4	(100.0)	244	(93.4)
Michigan	221	200	(79.5)	(86.5)	2	(50.0)	202	(86.1)
Minnesota	217	200	(90.0)	(93.5)	7	(85.7)	207	(93.2)
Mississippi	115	97	(83.5)	(92.8)	0	--	97	(92.8)
Missouri	104	92	(76.1)	(84.8)	3	(66.7)	95	(84.2)
Montana	13	10	(90.0)	(100.0)	1	(0.0)	11	(90.9)
Nebraska	25	23	(100.0)	(100.0)	0	--	23	(100.0)
Nevada	101	82	(90.2)	(96.3)	6	(66.7)	88	(94.3)
New Hampshire	17	15	(93.3)	(100.0)	0	--	15	(100.0)
New Jersey	508	463	(84.7)	(92.4)	8	(100.0)	471	(92.6)
New Mexico	48	37	(81.1)	(100.0)	2	(50.0)	39	(97.4)
New York State ⁵	315	272	(84.9)	(94.1)	10	(90.0)	282	(94.0)
New York City	948	822	(84.4)	(92.3)	39	(79.5)	861	(91.8)
North Carolina	374	339	(87.3)	(96.2)	10	(90.0)	349	(96.0)
North Dakota	10	10	(60.0)	(60.0)	0	--	10	(60.0)
Ohio	239	205	(82.9)	(91.2)	9	(100.0)	214	(91.6)
Oklahoma	144	129	(81.4)	(94.6)	0	--	129	(94.6)
Oregon	81	71	(91.5)	(100.0)	1	(100.0)	72	(100.0)
Pennsylvania	341	295	(82.0)	(93.2)	12	(91.7)	307	(93.2)
Rhode Island	26	24	(79.2)	(91.7)	2	(100.0)	26	(92.3)
South Carolina	222	194	(86.6)	(90.7)	1	(100.0)	195	(90.8)
South Dakota	14	12	(50.0)	(100.0)	0	--	12	(100.0)
Tennessee	277	239	(88.3)	(98.3)	1	(100.0)	240	(98.3)
Texas	1,563	1363	(81.4)	(91.0)	45	(88.9)	1408	(91.0)
Utah	34	32	(84.4)	(93.8)	0	--	32	(93.8)
Vermont	8	6	(83.3)	(83.3)	0	--	6	(83.3)
Virginia	332	292	(85.3)	(93.8)	10	(90.0)	302	(93.7)
Washington	262	226	(81.9)	(92.0)	8	(87.5)	234	(91.9)
West Virginia	22	18	...	...	0	--	18	...
Wisconsin	71	62	(85.5)	(91.9)	3	(66.7)	65	(90.8)
Wyoming	4	4	(100.0)	(100.0)	0	--	4	(100.0)
American Samoa ⁶	2	2	(100.0)	(100.0)	0	--	2	(100.0)
Fed. States of Micronesia ⁶	82	76	...	...	0	--	76	...
Guam ⁶	54	52	(86.5)	(86.5)	0	...	52	(86.5)
Marshall Islands ⁶	27	26	...	...	1	...	27	...
N. Mariana Islands ⁶	48	44	...	...	1	...	45	...
Puerto Rico ⁶	112	89	(96.6)	(98.9)	1	(100.0)	90	(98.9)
Republic of Palau ⁶	10	9	(66.7)	(77.8)	0	--	9	(77.8)
U.S. Virgin Islands ⁵	...	...	...	...	...	...	...	...

¹Most recent year for which data are available.

²Initial isolate susceptible to rifampin (n=9,070) or susceptibility unknown (n=185); culture negative (n=2,242); culture status unknown (n=538); age unknown (n=1).

³Initial isolate rifampin resistant, or pediatric patients (aged <15) with meningeal, bone, joint, or miliary disease.

⁴Number of cases in persons alive at diagnosis, with an initial regimen of one or more drugs prescribed, who did not die during therapy. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for ≥90% of cases.

⁵Excludes New York City.

⁶Not included in U.S. totals.

Note: Ellipses indicate data not available. See Technical Notes for description of Completion of Therapy calculation (page 9).

**Table 42. Tuberculosis Cases and Percentages by Reason Therapy Stopped:
Reporting Areas, 2006¹**

Reporting Area	Cases with Initial Drug Regimen Prescribed ²	Completed		Moved		Lost		Refused		Died ³		Unknown ⁴	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	13,306	11,425	(85.9)	328	(2.5)	346	(2.6)	76	(0.6)	931	(7.0)	200	(1.5)
Alabama	190	159	(83.7)	3	(1.6)	5	(2.6)	1	(0.5)	19	(10.0)	3	(1.6)
Alaska	68	61	(89.7)	0	(0.0)	1	(1.5)	1	(1.5)	4	(5.9)	1	(1.5)
Arizona	300	231	(77.0)	13	(4.3)	12	(4.0)	0	(0.0)	21	(7.0)	23	(7.7)
Arkansas	100	83	(83.0)	0	(0.0)	4	(4.0)	0	(0.0)	10	(10.0)	3	(3.0)
California	2,675	2,297	(85.9)	87	(3.3)	52	(1.9)	16	(0.6)	197	(7.4)	26	(1.0)
Colorado	121	110	(90.9)	1	(0.8)	4	(3.3)	0	(0.0)	6	(5.0)	0	(0.0)
Connecticut	85	78	(91.8)	1	(1.2)	1	(1.2)	0	(0.0)	3	(3.5)	2	(2.4)
Delaware	28	24	(85.7)	1	(3.6)	0	(0.0)	0	(0.0)	3	(10.7)	0	(0.0)
District of Columbia	72	54	(75.0)	5	(6.9)	4	(5.6)	1	(1.4)	7	(9.7)	1	(1.4)
Florida	997	886	(88.9)	17	(1.7)	17	(1.7)	2	(0.2)	66	(6.6)	9	(0.9)
Georgia	488	421	(86.3)	4	(0.8)	19	(3.9)	6	(1.2)	31	(6.4)	7	(1.4)
Hawaii	114	96	(84.2)	4	(3.5)	2	(1.8)	0	(0.0)	11	(9.6)	1	(0.9)
Idaho	19	18	(94.7)	0	(0.0)	0	(0.0)	0	(0.0)	1	(5.3)	0	(0.0)
Illinois	552	444	(80.4)	15	(2.7)	14	(2.5)	3	(0.5)	41	(7.4)	35	(6.3)
Indiana	122	111	(91.0)	1	(0.8)	3	(2.5)	1	(0.8)	5	(4.1)	1	(0.8)
Iowa	39	36	(92.3)	2	(5.1)	0	(0.0)	0	(0.0)	1	(2.6)	0	(0.0)
Kansas	77	74	(96.1)	0	(0.0)	1	(1.3)	0	(0.0)	2	(2.6)	0	(0.0)
Kentucky	83	67	(80.7)	3	(3.6)	3	(3.6)	0	(0.0)	8	(9.6)	2	(2.4)
Louisiana	195	160	(82.1)	7	(3.6)	8	(4.1)	1	(0.5)	16	(8.2)	3	(1.5)
Maine	16	13	(81.3)	0	(0.0)	0	(0.0)	0	(0.0)	3	(18.8)	0	(0.0)
Maryland	243	221	(90.9)	3	(1.2)	5	(2.1)	1	(0.4)	12	(4.9)	1	(0.4)
Massachusetts	257	228	(88.7)	10	(3.9)	4	(1.6)	0	(0.0)	13	(5.1)	2	(0.8)
Michigan	218	174	(79.8)	6	(2.8)	9	(4.1)	5	(2.3)	16	(7.3)	8	(3.7)
Minnesota	212	193	(91.0)	8	(3.8)	3	(1.4)	3	(1.4)	5	(2.4)	0	(0.0)
Mississippi	110	90	(81.8)	3	(2.7)	1	(0.9)	0	(0.0)	13	(11.8)	3	(2.7)
Missouri	102	80	(78.4)	11	(10.8)	0	(0.0)	0	(0.0)	7	(6.9)	4	(3.9)
Montana	12	10	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(8.3)	1	(8.3)
Nebraska	24	23	(95.8)	0	(0.0)	0	(0.0)	0	(0.0)	1	(4.2)	0	(0.0)
Nevada	100	83	(83.0)	1	(1.0)	2	(2.0)	0	(0.0)	12	(12.0)	2	(2.0)
New Hampshire	17	15	(88.2)	0	(0.0)	0	(0.0)	0	(0.0)	2	(11.8)	0	(0.0)
New Jersey	495	436	(88.1)	1	(0.2)	31	(6.3)	3	(0.6)	24	(4.8)	0	(0.0)
New Mexico	46	38	(82.6)	1	(2.2)	0	(0.0)	0	(0.0)	7	(15.2)	0	(0.0)
New York State ⁵	309	265	(85.8)	1	(0.3)	8	(2.6)	2	(0.6)	27	(8.7)	6	(1.9)
New York City	921	790	(85.8)	25	(2.7)	29	(3.1)	8	(0.9)	60	(6.5)	9	(1.0)
North Carolina	363	335	(92.3)	6	(1.7)	6	(1.7)	0	(0.0)	14	(3.9)	2	(0.6)
North Dakota	10	6	(60.0)	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(30.0)
Ohio	234	196	(83.8)	5	(2.1)	4	(1.7)	6	(2.6)	20	(8.5)	3	(1.3)
Oklahoma	140	122	(87.1)	4	(2.9)	0	(0.0)	0	(0.0)	11	(7.9)	3	(2.1)
Oregon	78	72	(92.3)	0	(0.0)	0	(0.0)	0	(0.0)	6	(7.7)	0	(0.0)
Pennsylvania	333	286	(85.9)	6	(1.8)	5	(1.5)	1	(0.3)	26	(7.8)	9	(2.7)
Rhode Island	26	24	(92.3)	0	(0.0)	2	(7.7)	0	(0.0)	0	(0.0)	0	(0.0)
South Carolina	213	177	(83.1)	2	(0.9)	7	(3.3)	4	(1.9)	18	(8.5)	5	(2.3)
South Dakota	14	12	(85.7)	0	(0.0)	0	(0.0)	0	(0.0)	2	(14.3)	0	(0.0)
Tennessee	268	236	(88.1)	2	(0.7)	2	(0.7)	0	(0.0)	28	(10.4)	0	(0.0)
Texas	1,513	1,281	(84.7)	46	(3.0)	67	(4.4)	6	(0.4)	105	(6.9)	8	(0.5)
Utah	34	30	(88.2)	1	(2.9)	1	(2.9)	0	(0.0)	2	(5.9)	0	(0.0)
Vermont	7	5	(71.4)	0	(0.0)	0	(0.0)	0	(0.0)	1	(14.3)	1	(14.3)
Virginia	319	283	(88.7)	6	(1.9)	7	(2.2)	2	(0.6)	17	(5.3)	4	(1.3)
Washington	254	215	(84.6)	13	(5.1)	2	(0.8)	2	(0.8)	20	(7.9)	2	(0.8)
West Virginia	20	13	(65.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(10.0)	5	(25.0)
Wisconsin	69	59	(85.5)	2	(2.9)	1	(1.4)	1	(1.4)	4	(5.8)	2	(2.9)
Wyoming	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
American Samoa ⁶	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Fed. States of Micronesia ⁶	77	21	(27.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(1.3)	55	(71.4)
Guam ⁶	54	45	(83.3)	4	(7.4)	0	(0.0)	0	(0.0)	2	(3.7)	3	(5.6)
Marshall Islands ⁶	27	4	(14.8)	2	(7.4)	0	(0.0)	1	(3.7)	0	(0.0)	20	(74.1)
N. Mariana Islands ⁶	45	32	(71.1)	6	(13.3)	0	(0.0)	1	(2.2)	0	(0.0)	6	(13.3)
Puerto Rico ⁶	104	89	(85.6)	0	(0.0)	1	(1.0)	0	(0.0)	14	(13.5)	0	(0.0)
Republic of Palau ⁶	10	7	(70.0)	2	(20.0)	0	(0.0)	0	(0.0)	1	(10.0)	0	(0.0)
U.S. Virgin Islands ⁶	...	...	...	...	...	...	...	...	...	...	...	...	...

¹Most recent year for which data are available.

²Number of cases in persons alive at diagnosis, with an initial regimen of one or more drugs prescribed. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia).

³Died = Died of any cause.

⁴Includes cases reported as Other, Missing, or Unknown.

⁵Excludes New York City.

⁶Not included in U.S. totals.

Note: Ellipses indicate data not available.

Table 43. Completion of Tuberculosis Therapy (COT) Cases and Percentages¹ by Hispanic Ethnicity and Non-Hispanic Race: Reporting Areas, 2006²

Reporting Area	Total Cases ³	Non-Hispanic											
		Hispanic ⁴		American Indian or Alaska Native		Asian or Pacific Islander		Black		White		Unknown or Missing	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
United States	12,036	3593	(81.8)	138	(83.3)	3013	(84.5)	3230	(83.3)	1998	(85.2)	64	(85.9)
Alabama	165	36	(83.3)	0	--	10	(80.0)	63	(90.5)	56	(85.7)	0	--
Alaska	63	0	--	47	(89.4)	10	(100.0)	1	(0.0)	4	(100.0)	1	(100.0)
Arizona	273	173	(75.1)	9	(44.4)	29	(82.8)	20	(100.0)	42	(76.2)	0	...
Arkansas	90	21	(90.5)	0	--	7	(85.7)	28	(92.9)	29	(86.2)	5	(100.0)
California	2,399	909	(79.2)	5	(80.0)	1076	(82.1)	175	(76.6)	217	(83.4)	17	(76.5)
Colorado	108	53	(84.9)	0	--	26	(88.5)	17	(94.1)	11	(100.0)	1	(100.0)
Connecticut	77	14	(85.7)	0	--	22	(86.4)	25	(88.0)	16	(87.5)	0	--
Delaware	24	11	(81.8)	1	(100.0)	3	(100.0)	8	(75.0)	1	(100.0)	0	--
District of Columbia	64	9	(66.7)	0	--	3	(66.7)	48	(68.8)	3	(100.0)	1	(100.0)
Florida	918	262	(88.2)	0	--	77	(87.0)	365	(90.4)	211	(90.0)	3	(66.7)
Georgia	444	102	(78.4)	0	--	63	(82.5)	218	(81.7)	58	(91.4)	3	(100.0)
Hawaii	101	0	--	0	--	92	(78.3)	0	--	6	(100.0)	3	(66.7)
Idaho	18	6	(50.0)	1	(100.0)	4	(100.0)	0	--	7	(85.7)	0	--
Illinois	500	129	(79.1)	1	(100.0)	132	(81.8)	163	(75.5)	75	(80.0)	0	--
Indiana	116	28	(96.4)	0	--	16	(81.3)	31	(87.1)	41	(92.7)	0	--
Iowa	37	9	(77.8)	1	(100.0)	10	(80.0)	7	(100.0)	10	(90.0)	0	...
Kansas	73	21	(90.5)	0	--	17	(100.0)	11	(90.9)	23	(91.3)	1	(100.0)
Kentucky	75	8	(25.0)	0	--	6	(100.0)	15	(86.7)	46	(89.1)	0	--
Louisiana	178	10	(60.0)	1	(100.0)	15	(93.3)	100	(75.0)	52	(78.8)	0	--
Maine	13	0	--	0	--	2	(100.0)	9	(100.0)	2	(100.0)	0	--
Maryland	226	48	(85.4)	0	--	54	(94.4)	102	(92.2)	22	(86.4)	0	--
Massachusetts	240	47	(85.1)	0	--	76	(89.5)	67	(82.1)	49	(87.8)	1	(100.0)
Michigan	200	22	(86.4)	1	(100.0)	51	(82.4)	75	(66.7)	50	(92.0)	1	(100.0)
Minnesota	200	23	(78.3)	6	(100.0)	42	(88.1)	107	(93.5)	21	(85.7)	1	(100.0)
Mississippi	97	12	(91.7)	2	(100.0)	6	(33.3)	52	(84.6)	25	(88.0)	0	--
Missouri	92	17	(70.6)	0	--	18	(77.8)	27	(92.6)	30	(63.3)	0	--
Montana	10	0	--	3	(100.0)	2	(100.0)	2	(100.0)	3	(66.7)	0	--
Nebraska	23	8	(100.0)	2	(100.0)	3	(100.0)	3	(100.0)	3	(100.0)	4	(100.0)
Nevada	82	30	(80.0)	0	--	26	(96.2)	14	(100.0)	12	(91.7)	0	--
New Hampshire	15	1	(100.0)	0	--	5	(100.0)	4	(100.0)	5	(80.0)	0	--
New Jersey	463	160	(86.3)	0	--	142	(83.8)	101	(81.2)	60	(88.3)	0	--
New Mexico	37	23	(82.6)	11	(81.8)	2	(50.0)	0	--	1	(100.0)	0	--
New York State ⁵	272	95	(87.4)	0	--	64	(84.4)	64	(90.6)	49	(73.5)	0	--
New York City	822	237	(85.2)	0	--	264	(87.1)	238	(81.1)	80	(83.8)	3	(66.7)
North Carolina	339	70	(85.7)	8	(87.5)	48	(87.5)	145	(89.0)	60	(85.0)	8	(87.5)
North Dakota	10	2	(100.0)	2	(0.0)	3	(66.7)	1	(100.0)	2	(50.0)	0	--
Ohio	205	16	(81.3)	0	--	24	(83.3)	103	(84.5)	62	(80.6)	0	--
Oklahoma	129	23	(95.7)	18	(77.8)	19	(84.2)	18	(77.8)	51	(76.5)	0	--
Oregon	71	14	(85.7)	0	--	27	(92.6)	12	(91.7)	18	(94.4)	0	--
Pennsylvania	295	37	(83.8)	0	--	77	(87.0)	120	(75.0)	60	(88.3)	1	(100.0)
Rhode Island	24	11	(81.8)	0	--	5	(100.0)	5	(60.0)	3	(66.7)	0	--
South Carolina	194	25	(68.0)	1	(100.0)	13	(100.0)	118	(89.8)	37	(83.8)	0	--
South Dakota	12	0	...	4	(50.0)	3	(33.3)	4	(50.0)	1	(100.0)	0	--
Tennessee	239	33	(87.9)	0	--	22	(90.9)	108	(85.2)	75	(92.0)	1	(100.0)
Texas	1,363	687	(81.1)	4	(100.0)	177	(85.9)	289	(75.8)	199	(85.9)	7	(100.0)
Utah	32	13	(92.3)	0	--	9	(88.9)	6	(83.3)	4	(50.0)	0	--
Vermont	6	0	...	0	--	2	(100.0)	2	(50.0)	2	(100.0)	0	--
Virginia	292	76	(82.9)	0	--	94	(87.2)	97	(86.6)	25	(80.0)	0	--
Washington	226	39	(74.4)	7	(85.7)	99	(82.8)	31	(87.1)	49	(81.6)	1	(100.0)
West Virginia	18	...	...	...	...	...	...	...	...	...	...	...	...
Wisconsin	62	21	(81.0)	2	(100.0)	13	(92.3)	9	(88.9)	16	(87.5)	1	(0.0)
Wyoming	4	0	--	1	(100.0)	1	(100.0)	1	(100.0)	1	(100.0)	0	--
American Samoa ⁶	2	0	--	0	--	2	(100.0)	0	--	0	--	0	--
Fed. States of Micronesia ⁶	76	...	...	...	...	...	...	...	...	...	...	...	...
Guam ⁶	52	0	--	0	--	50	(88.0)	0	--	1	(0.0)	1	(100.0)
Marshall Islands ⁶	26	...	...	...	...	...	...	...	...	...	...	...	...
N. Mariana Islands ⁶	44	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico ⁶	89	89	(96.6)	0	--	0	--	0	--	0	--	0	--
Republic of Palau ⁶	9	0	--	0	--	8	(62.5)	0	--	0	--	1	(100.0)
U.S. Virgin Islands ⁶	...	...	...	...	...	...	...	...	...	...	...	...	...

¹Percentages shown only for reporting areas with information reported for ≥90% of cases, and indicate the percentage of those who completed therapy within 1 year.

²Most recent year for which data are available.

³Therapy < 1 year indicated in persons alive at diagnosis with an initial regimen of one or more drugs prescribed, who did not die during therapy.

⁴Persons of Hispanic or Latino origin may be of any race.

⁵Excludes New York City.

⁶Not included in U.S. totals.

Note: Case counts and percentage for race categories do not include persons of Hispanic ethnicity. Ellipses indicate data not available. See Technical Notes for description of Completion of Therapy calculation (page 9).

Table 44. Tuberculosis Cases and Percentages in Persons Completing Therapy for Whom Therapy Was Indicated for One Year or Less: Reporting Areas, 2002–2006¹

Reporting Area	Year									
	2002		2003		2004		2005		2006	
	No. ²	(%) ³	No. ²	(%) ³	No. ²	(%) ³	No. ²	(%) ³	No. ²	(%) ³
United States	13127	(82.1)	13061	(82.8)	12785	(82.9)	12350	(83.0)	12036	(83.5)
Alabama	201	(90.0)	232	(86.2)	179	(89.9)	194	(89.7)	165	(86.7)
Alaska	45	(88.9)	51	(92.2)	38	(84.2)	57	(93.0)	63	(90.5)
Arizona	222	(80.2)	260	(79.6)	246	(74.8)	245	(83.7)	273	(76.9)
Arkansas	114	(86.8)	116	(87.9)	114	(88.6)	103	...	90	(90.0)
California	2791	(82.7)	2840	(81.5)	2637	(81.8)	2543	(80.8)	2399	(80.7)
Colorado	96	(84.4)	102	(93.1)	116	(96.6)	85	(96.5)	108	(88.9)
Connecticut	89	(70.8)	100	(76.0)	85	(77.6)	87	(82.8)	77	(87.0)
Delaware	22	(90.9)	28	(85.7)	29	(93.1)	24	(87.5)	24	(83.3)
District of Columbia	75	(98.7)	68	(91.2)	66	(93.9)	49	(87.8)	64	(70.3)
Florida	931	(82.4)	917	(85.9)	928	(85.9)	968	(88.6)	918	(89.3)
Georgia	456	(78.9)	480	(79.6)	458	(83.4)	449	(82.0)	444	(82.4)
Hawaii	136	(69.9)	98	(79.6)	107	(80.4)	95	(74.7)	101	(79.2)
Idaho	13	...	13	(84.6)	10	(80.0)	21	(76.2)	18	(77.8)
Illinois	577	(77.6)	563	(80.8)	503	(79.9)	524	(80.0)	500	(78.8)
Indiana	105	(96.2)	118	(95.8)	111	(93.7)	133	(91.0)	116	(90.5)
Iowa	33	(81.8)	37	(91.9)	47	(76.6)	52	(84.6)	37	(86.5)
Kansas	73	(83.6)	64	(78.1)	57	(84.2)	57	(86.0)	73	(93.2)
Kentucky	129	(85.3)	120	(85.8)	110	(87.3)	104	(87.5)	75	(82.7)
Louisiana	207	(81.6)	219	(81.7)	231	(73.2)	218	...	178	(77.0)
Maine	18	(77.8)	23	(69.6)	18	(66.7)	16	(75.0)	13	(100.0)
Maryland	261	(87.7)	239	(87.9)	279	(90.7)	249	(88.4)	226	(90.7)
Massachusetts	254	(76.8)	243	(80.2)	256	(77.7)	235	(78.7)	240	(86.3)
Michigan	261	(82.0)	205	(84.9)	239	(87.0)	201	(80.1)	200	(79.5)
Minnesota	218	(85.3)	200	(89.5)	188	(91.0)	183	(92.9)	200	(90.0)
Mississippi	112	(83.0)	108	(73.1)	101	(85.1)	84	(84.5)	97	(83.5)
Missouri	114	(86.0)	105	(73.3)	111	(82.0)	91	(85.7)	92	(76.1)
Montana	10	(90.0)	5	(100.0)	14	(92.9)	8	(87.5)	10	(90.0)
Nebraska	24	(70.8)	25	(68.0)	37	(86.5)	29	(75.9)	23	(100.0)
Nevada	70	(98.6)	96	(91.7)	88	(90.9)	106	...	82	(90.2)
New Hampshire	18	(88.9)	13	(92.3)	21	(100.0)	4	(75.0)	15	(93.3)
New Jersey	474	(79.1)	450	(81.8)	429	(82.3)	420	(85.7)	463	(84.7)
New Mexico	49	(83.7)	37	(86.5)	33	(84.8)	26	(80.8)	37	(81.1)
New York State ⁴	314	(77.1)	296	(83.4)	293	(86.3)	266	(87.6)	272	(84.9)
New York City	909	(86.2)	979	(86.7)	901	(84.5)	844	(82.0)	822	(84.4)
North Carolina	366	(90.7)	323	(89.5)	332	(92.5)	290	(85.9)	339	(87.3)
North Dakota	6	(100.0)	4	(50.0)	4	(100.0)	6	(50.0)	10	(60.0)
Ohio	219	(80.4)	193	(90.7)	190	(87.9)	231	(87.0)	205	(82.9)
Oklahoma	168	(86.3)	137	(70.1)	164	(80.5)	118	(85.6)	129	(81.4)
Oregon	101	(88.1)	96	(84.4)	97	(89.7)	95	(93.7)	71	(91.5)
Pennsylvania	299	(75.6)	288	(79.5)	280	...	270	...	295	(82.0)
Rhode Island	44	(68.2)	40	(90.0)	49	(85.7)	41	(82.9)	24	(79.2)
South Carolina	222	(80.2)	232	(86.6)	213	(82.2)	231	(87.4)	194	(86.6)
South Dakota	9	(88.9)	16	(68.8)	9	(44.4)	13	(53.8)	12	(50.0)
Tennessee	276	(84.4)	237	(81.0)	237	(86.1)	267	(88.8)	239	(88.3)
Texas	1339	(76.6)	1389	(77.0)	1459	(76.5)	1341	(82.2)	1363	(81.4)
Utah	30	(93.3)	35	(97.1)	32	(96.9)	26	(96.2)	32	(84.4)
Vermont	8	(87.5)	8	(100.0)	6	(66.7)	7	(100.0)	6	(83.3)
Virginia	285	(86.7)	298	(87.6)	292	(88.4)	321	(82.6)	292	(85.3)
Washington	238	(83.2)	234	(82.5)	226	(88.1)	226	(83.2)	226	(81.9)
West Virginia	26	(65.4)	17	(70.6)	21	(81.0)	24	(58.3)	18	...
Wisconsin	67	(83.6)	61	(86.9)	89	(79.8)	73	(83.6)	62	(85.5)
Wyoming	3	(100.0)	3	(100.0)	5	(100.0)	0	--	4	(100.0)
American Samoa ⁵	0	--	0	--	3	...	5	...	2	(100.0)
Fed. States of Micronesia ⁵	0	--	0	--	5	...	72	...	76	...
Guam ⁵	79	...	58	(87.9)	45	(84.4)	59	(79.7)	52	(86.5)
Marshall Islands ⁵	0	--	0	--	38	...	63	...	26	...
N. Mariana Islands ⁵	50	(70.0)	42	(78.6)	54	(87.0)	54	...	44	...
Puerto Rico ⁵	93	(79.6)	89	(70.8)	89	(79.8)	86	(87.2)	89	(96.6)
Republic of Palau ⁵	0	--	7	(57.1)	5	(80.0)	10	(100.0)	9	(66.7)
U.S. Virgin Islands ⁵	0	--	0	--	0	--	0	--	0	--

¹Most recent year for which data are available.

²Total cases for which therapy less than 1 year indicated in persons alive at diagnosis, with an initial regimen of one or more drugs prescribed, who did not die during therapy.

³Percentage of total cases in persons who completed therapy for whom therapy less than 1 year was indicated.

⁴Excludes New York City.

⁵Not included in U.S. totals.

Note: Ellipses indicate data not available.

See Technical Notes for description of Completion of Therapy calculation (page 9).

Morbidity Tables

Cities and Metropolitan Statistical Areas, 2008

Table 45. Tuberculosis Cases in Selected Cities¹: 2008 and 2007

City	Cases ²	
	2008	2007
Albuquerque, NM	14	10
Anaheim, CA	34	35
Arlington, TX	19	24
Atlanta, GA	19	44
Austin, TX	39	51
Baltimore, MD	32	47
Birmingham, AL	16	25
Boston, MA	61	49
Buffalo, NY	15	6
Charlotte, NC	20	27
Chicago, IL	212	258
Cincinnati, OH	10	21
Cleveland, OH	35	25
Colorado Springs, CO	10	6
Columbus, OH	55	67
Corpus Christi, TX	12	13
Dallas, TX	161	163
Denver, CO	30	40
Detroit, MI	53	62
El Paso, TX	61	40
Fort Worth, TX	49	58
Fresno, CA	51	27
Honolulu, HI	50	62
Houston, TX ³	264	281
Indianapolis, IN	33	41
Jacksonville, FL	100	68
Kansas City, MO	18	20
Las Vegas, NV	81	76
Long Beach, CA	47	38
Los Angeles, CA	329	306
Louisville, KY	26	30
Memphis, TN	81	72
Mesa, AZ	7	11
Miami, FL	128	152
Milwaukee, WI	24	26
Minneapolis, MN	56	71
Nashville, TN	68	50
Newark, NJ	36	36
New Orleans, LA	28	28
New York, NY	895	908
Norfolk, VA	5	4
Oakland, CA	49	59
Oklahoma City, OK	17	26
Omaha, NE	17	9
Philadelphia, PA	159	125
Phoenix, AZ	64	97
Pittsburgh, PA	7	6
Portland, OR	26	29
Sacramento, CA	76	73
St. Louis, MO	20	25
St. Paul, MN	38	40
San Antonio, TX	81	72
San Diego, CA	156	161
San Francisco, CA	118	142
San Jose, CA	130	166
Santa Ana, CA	34	33
Seattle, WA	66	86
Tampa, FL	32	53
Toledo, OH	7	4
Tucson, AZ	26	36
Tulsa, OK	14	22
Virginia Beach, VA	9	12
Washington, DC	54	59
Wichita, KS	16	17
TOTAL - 64 CITIES	4,500	4,730
San Juan, PR	10	15

¹Historical list of cities.²Case counts are based on verified cases in persons residing within city limits.

Residence within city limits was determined by the health department.

³Change in case count from 2007 report due to a correction in jurisdiction assignment of a case

Table 46. Tuberculosis Cases and Case Rates per 100,000 Population: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008 and 2007

Metropolitan Statistical Area	Cases		Case Rates		Population Estimates 2008
	2008	2007	2008	2007	
Akron, OH	5	5	(0.7)	(0.7)	698,553
Albany-Schenectady-Troy, NY	4	16	(0.5)	(1.9)	853,919
Albuquerque, NM	23	16	(2.7)	(1.9)	845,913
Allentown-Bethlehem-Easton, PA-NJ	17	2	(2.1)	(0.2)	808,210
Atlanta-Sandy Springs-Marietta, GA	300	274	(5.6)	(5.2)	5,376,285
Augusta-Richmond County, GA-SC	26	34	(4.9)	(6.4)	534,218
Austin-Round Rock, TX	56	66	(3.4)	(4.1)	1,652,602
Bakersfield, CA	50	38	(6.2)	(4.8)	800,458
Baltimore-Towson, MD	89	105	(3.3)	(3.9)	2,667,117
Baton Rouge, LA	30	28	(3.9)	(3.6)	774,327
Birmingham-Hoover, AL	32	42	(2.9)	(3.8)	1,117,608
Boise City-Nampa, ID	6	4	(1.0)	(0.7)	599,753
Boston-Cambridge-Quincy, MA-NH	207	179	(4.6)	(4.0)	4,522,858
Bridgeport-Stamford-Norwalk, CT	36	52	(4.0)	(5.8)	895,030
Buffalo-Niagara Falls, NY	18	10	(1.6)	(0.9)	1,124,309
Cape Coral-Fort Myers, FL	32	45	(5.4)	(7.7)	593,136
Charleston-North Charleston, SC	31	44	(4.8)	(7.0)	644,506
Charlotte-Gastonia-Concord, NC-SC	76	50	(4.5)	(3.0)	1,701,799
Chattanooga, TN-GA	16	16	(3.1)	(3.1)	518,441
Chicago-Naperville-Joliet, IL	436	489	(4.6)	(5.1)	9,569,624
Cincinnati-Middletown, OH-KY-IN	42	44	(1.9)	(2.1)	2,155,137
Cleveland-Elyria-Mentor, OH	59	61	(2.8)	(2.9)	2,088,291
Colorado Springs, CO	10	7	(1.6)	(1.2)	617,714
Columbia, SC	24	31	(3.3)	(4.3)	728,063
Columbus, OH	66	80	(3.7)	(4.6)	1,773,120
Dallas-Fort Worth-Arlington, TX	372	384	(5.9)	(6.2)	6,300,006
Dayton, OH	10	15	(1.2)	(1.8)	836,544
Denver-Aurora, CO	67	79	(2.7)	(3.2)	2,506,626
Des Moines-West Des Moines, IA	7	7	(1.3)	(1.3)	556,230
Detroit-Warren-Livonia, MI	119	138	(2.7)	(3.1)	4,425,110
El Paso, TX	67	40	(9.0)	(5.5)	742,062
Fresno, CA	73	42	(8.0)	(4.7)	909,153
Grand Rapids-Wyoming, MI	14	23	(1.8)	(3.0)	776,833
Greensboro-High Point, NC	24	31	(3.4)	(4.5)	705,684
Greenville, SC	19	18	(3.0)	(2.9)	624,715
Harrisburg-Carlisle, PA	17	13	(3.2)	(2.5)	531,108
Hartford-West Hartford-East Hartford, CT	24	25	(2.0)	(2.1)	1,190,512
Honolulu, HI	101	109	(11.2)	(12.1)	905,034
Houston-Sugar Land-Baytown, TX	457	488	(8.0)	(8.7)	5,728,143
Indianapolis-Carmel, IN	40	48	(2.3)	(2.8)	1,715,459
Jackson, MS	35	36	(6.5)	(6.7)	537,285
Jacksonville, FL	107	76	(8.1)	(5.9)	1,313,228
Kansas City, MO-KS	46	49	(2.3)	(2.5)	2,002,047
Knoxville, TN	17	16	(2.5)	(2.4)	691,152
Lakeland, FL	21	29	(3.6)	(5.1)	580,594
Las Vegas-Paradise, NV	91	92	(4.9)	(5.0)	1,865,746
Little Rock-North Little Rock-Conway, AR	16	31	(2.4)	(4.7)	675,069
Los Angeles-Long Beach-Santa Ana, CA	1,054	1,077	(8.2)	(8.4)	12,872,808
Louisville-Jefferson County, KY-IN	34	39	(2.7)	(3.2)	1,244,696
Madison, WI	8	4	(1.4)	(0.7)	561,505
McAllen-Edinburg-Mission, TX	90	76	(12.4)	(10.8)	726,604
Memphis, TN-MS-AR	96	84	(7.5)	(6.6)	1,285,732
Miami-Fort Lauderdale-Pompano Beach, FL	349	337	(6.4)	(6.2)	5,414,772
Milwaukee-Waukesha-West Allis, WI	35	38	(2.3)	(2.5)	1,549,308
Minneapolis-St. Paul-Bloomington, MN-WI	165	188	(5.1)	(5.9)	3,229,878
Modesto, CA	21	16	(4.1)	(3.1)	510,694

Table 46. (Cont'd) Tuberculosis Cases and Case Rates per 100,000 Population: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008 and 2007

Metropolitan Statistical Area	Cases		Case Rates		Population Estimates 2008
	2008	2007	2008	2007	
Nashville-Davidson-Murfreesboro-Franklin, TN	100	74	(6.4)	(4.9)	1,550,733
New Haven-Milford, CT	26	25	(3.1)	(3.0)	846,101
New Orleans-Metairie-Kenner, LA	72	70	(6.3)	(6.3)	1,134,029
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	1,450	(7.6)	(7.7)	19,006,798
Ogden-Clearfield, UT	4	4	(0.8)	(0.8)	531,488
Oklahoma City, OK	35	41	(2.9)	(3.4)	1,206,142
Omaha-Council Bluffs, NE-IA	25	14	(3.0)	(1.7)	837,925
Orlando-Kissimmee, FL	106	117	(5.2)	(5.8)	2,054,574
Oxnard-Thousand Oaks-Ventura, CA	65	58	(8.1)	(7.3)	797,740
Palm Bay-Melbourne-Titusville, FL	10	19	(1.9)	(3.6)	536,521
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	237	(4.9)	(4.1)	5,838,471
Phoenix-Mesa-Scottsdale, AZ	150	210	(3.5)	(5.0)	4,281,899
Pittsburgh, PA	27	30	(1.1)	(1.3)	2,351,192
Portland-South Portland-Biddeford, ME	4	12	(0.8)	(2.3)	514,065
Portland-Vancouver-Beaverton, OR-WA	61	67	(2.8)	(3.1)	2,207,462
Poughkeepsie-Newburgh-Middletown, NY	15	10	(2.2)	(1.5)	672,525
Providence-New Bedford-Fall River, RI-MA	56	58	(3.5)	(3.6)	1,596,611
Provo-Orem, UT	1	...	(0.2)	...	540,820
Raleigh-Cary, NC	51	64	(4.7)	(6.1)	1,088,765
Richmond, VA	38	30	(3.1)	(2.5)	1,225,626
Riverside-San Bernardino-Ontario, CA	153	140	(3.7)	(3.4)	4,115,871
Rochester, NY	17	24	(1.6)	(2.3)	1,034,090
Sacramento-Arden Arcade-Roseville, CA	124	134	(5.9)	(6.4)	2,109,832
St. Louis, MO-IL	58	56	(2.1)	(2.0)	2,816,710
Salt Lake City, UT	16	21	(1.4)	(1.9)	1,115,692
San Antonio, TX	92	84	(4.5)	(4.2)	2,031,445
San Diego-Carlsbad-San Marcos, CA	264	280	(8.8)	(9.5)	3,001,072
San Francisco-Oakland-Fremont, CA	404	454	(9.5)	(10.8)	4,274,531
San Jose-Sunnyvale-Santa Clara, CA	198	240	(10.9)	(13.4)	1,819,198
Sarasota-Bradenton-Venice, FL	31	33	(4.5)	(4.8)	687,823
Scranton-Wilkes-Barre, PA	12	9	(2.2)	(1.6)	549,150
Seattle-Tacoma-Bellevue, WA	164	209	(4.9)	(6.3)	3,344,813
Springfield, MA	6	13	(0.9)	(1.9)	687,558
Stockton, CA	66	51	(9.8)	(7.6)	672,388
Syracuse, NY	22	17	(3.4)	(2.6)	643,794
Tampa-St. Petersburg-Clearwater, FL	111	128	(4.1)	(4.7)	2,733,761
Toledo, OH	8	8	(1.2)	(1.2)	649,104
Tucson, AZ	26	41	(2.6)	(4.1)	1,012,018
Tulsa, OK	22	31	(2.4)	(3.4)	916,079
Virginia Beach-Norfolk-Newport News, VA-NC	42	41	(2.5)	(2.5)	1,658,292
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	416	(7.5)	(7.8)	5,358,130
Wichita, KS	17	17	(2.8)	(2.9)	603,716
Worcester, MA	29	18	(3.7)	(2.3)	783,806
Youngstown-Warren-Boardman, OH-PA	6	8	(1.1)	(1.4)	565,947
Total - 100 Areas	10,153	10,456	(5.1)	(5.3)	199,179,635
San Juan-Caguas-Guaynabo, PR	75	79	(2.9)	(3.0)	2,608,375

Note: In 2008, there was 1 metropolitan statistical area with a 2007 population of less than 500,000. Ellipses indicate that data not shown for those populations less than 500,000.

2008 and 2007 population case counts and rates updated using U.S. Census Metropolitan Statistical Areas and Components, November 2007, with Codes (<http://www.whitehouse.gov/omb/bulletins/fy2008/b08-01.pdf>) (accessed July 27, 2009).

See Technical Notes for definition of MSA (page 9).

Table 47. Tuberculosis Cases by Pulmonary and Extrapulmonary Disease: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	Pulmonary ¹		Extrapulmonary ²		Cases in Persons with Both Pul- monary and Extrapulm. Disease		
		No.	(%)	No.	(%)	Total ³		Miliary No.
						No.	(%)	
Akron, OH	5	3	(60.0)	1	(20.0)	1	(20.0)	0
Albany-Schenectady-Troy, NY	4	4	(100.0)	0	(0.0)	0	(0.0)	0
Albuquerque, NM	23	13	(56.5)	8	(34.8)	2	(8.7)	0
Allentown-Bethlehem-Easton, PA-NJ	17	10	(58.8)	6	(35.3)	1	(5.9)	0
Atlanta-Sandy Springs-Marietta, GA	300	210	(70.0)	59	(19.7)	30	(10.0)	2
Augusta-Richmond County, GA-SC	26	16	(61.5)	6	(23.1)	4	(15.4)	1
Austin-Round Rock, TX	56	37	(66.1)	15	(26.8)	4	(7.1)	2
Bakersfield, CA	50	42	(84.0)	5	(10.0)	3	(6.0)	1
Baltimore-Towson, MD	89	58	(65.2)	23	(25.8)	8	(9.0)	2
Baton Rouge, LA	30	24	(80.0)	6	(20.0)	0	(0.0)	0
Birmingham-Hoover, AL	32	29	(90.6)	3	(9.4)	0	(0.0)	0
Boise City-Nampa, ID	6	6	(100.0)	0	(0.0)	0	(0.0)	0
Boston-Cambridge-Quincy, MA-NH	207	118	(57.0)	47	(22.7)	42	(20.3)	15
Bridgeport-Stamford-Norwalk, CT	36	26	(72.2)	7	(19.4)	3	(8.3)	1
Buffalo-Niagara Falls, NY	18	15	(83.3)	2	(11.1)	1	(5.6)	0
Cape Coral-Fort Myers, FL	32	29	(90.6)	3	(9.4)	0	(0.0)	0
Charleston-North Charleston, SC	31	22	(71.0)	4	(12.9)	5	(16.1)	2
Charlotte-Gastonia-Concord, NC-SC	76	57	(75.0)	13	(17.1)	6	(7.9)	2
Chattanooga, TN-GA	16	12	(75.0)	2	(12.5)	2	(12.5)	1
Chicago-Naperville-Joliet, IL	436	262	(60.1)	127	(29.1)	47	(10.8)	8
Cincinnati-Middleton, OH-KY-IN	42	32	(76.2)	4	(9.5)	6	(14.3)	2
Cleveland-Elyria-Mentor, OH	59	38	(64.4)	15	(25.4)	6	(10.2)	2
Colorado Springs, CO	10	4	(40.0)	3	(30.0)	3	(30.0)	0
Columbia, SC	24	17	(70.8)	4	(16.7)	3	(12.5)	1
Columbus, OH	66	41	(62.1)	24	(36.4)	1	(1.5)	0
Dallas-Fort Worth-Arlington, TX	372	282	(75.8)	63	(16.9)	27	(7.3)	10
Dayton, OH	10	8	(80.0)	2	(20.0)	0	(0.0)	0
Denver-Aurora, CO	67	36	(53.7)	21	(31.3)	10	(14.9)	3
Des Moines-West Des Moines, IA	7	4	(57.1)	3	(42.9)	0	(0.0)	0
Detroit-Warren-Livonia, MI	119	69	(58.0)	27	(22.7)	20	(16.8)	0
El Paso, TX	67	51	(76.1)	10	(14.9)	6	(9.0)	5
Fresno, CA	73	61	(83.6)	8	(11.0)	4	(5.5)	2
Grand Rapids-Wyoming, MI	14	6	(42.9)	7	(50.0)	0	(0.0)	0
Greensboro-High Point, NC	24	16	(66.7)	5	(20.8)	3	(12.5)	0
Greenville, SC	19	11	(57.9)	6	(31.6)	2	(10.5)	1
Harrisburg-Carlisle, PA	17	10	(58.8)	5	(29.4)	2	(11.8)	1
Hartford-West Hartford-East Hartford, CT	24	14	(58.3)	6	(25.0)	4	(16.7)	1
Honolulu, HI	101	82	(81.2)	12	(11.9)	7	(6.9)	3
Houston-Sugar Land-Baytown, TX	457	340	(74.4)	84	(18.4)	33	(7.2)	16
Indianapolis-Carmel, IN	40	28	(70.0)	7	(17.5)	5	(12.5)	0
Jackson, MS	35	31	(88.6)	3	(8.6)	1	(2.9)	0
Jacksonville, FL	107	90	(84.1)	17	(15.9)	0	(0.0)	0
Kansas City, MO-KS	46	30	(65.2)	11	(23.9)	5	(10.9)	2
Knoxville, TN	17	16	(94.1)	1	(5.9)	0	(0.0)	0
Lakeland, FL	21	17	(81.0)	2	(9.5)	2	(9.5)	0
Lancaster, PA	17	13	(76.5)	3	(17.6)	1	(5.9)	0
Las Vegas-Paradise, NV	91	69	(75.8)	14	(15.4)	8	(8.8)	0
Little Rock-North Little Rock-Conway, AR	16	12	(75.0)	2	(12.5)	1	(6.3)	0
Los Angeles-Long Beach-Santa Ana, CA	1,054	748	(71.0)	223	(21.2)	82	(7.8)	12
Louisville-Jefferson County, KY-IN	34	29	(85.3)	4	(11.8)	1	(2.9)	0
Madison, WI	8	5	(62.5)	2	(25.0)	1	(12.5)	1
McAllen-Edinburg-Mission, TX	90	76	(84.4)	7	(7.8)	7	(7.8)	4
Memphis, TN-MS-AR	96	53	(55.2)	29	(30.2)	14	(14.6)	2
Miami-Fort Lauderdale-Pompano Beach, FL	349	279	(79.9)	64	(18.3)	6	(1.7)	2
Milwaukee-Waukesha-West Allis, WI	35	19	(54.3)	13	(37.1)	3	(8.6)	3
Minneapolis-St. Paul-Bloomington, MN-WI	165	81	(49.1)	69	(41.8)	15	(9.1)	0
Modesto, CA	21	18	(85.7)	2	(9.5)	1	(4.8)	0

Table 47. (Cont'd) Tuberculosis Cases by Pulmonary and Extrapulmonary Disease: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	Pulmonary ¹		Extrapulmonary ²		Cases in Persons with Both Pulmonary and Extrapulm. Disease		
		No.	(%)	No.	(%)	Total ³		Miliary
						No.	(%)	No.
Nashville-Davidson-Murfreesboro-Franklin, TN	100	84	(84.0)	6	(6.0)	10	(10.0)	2
New Haven-Milford, CT	26	19	(73.1)	6	(23.1)	1	(3.8)	0
New Orleans-Metairie-Kenner, LA	72	61	(84.7)	7	(9.7)	4	(5.6)	3
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	930	(64.3)	346	(23.9)	170	(11.8)	7
Ogden-Clearfield, UT	4	4	(100.0)	0	(0.0)	0	(0.0)	0
Oklahoma City, OK	35	28	(80.0)	4	(11.4)	3	(8.6)	1
Omaha-Council Bluffs, NE-IA	25	17	(68.0)	8	(32.0)	0	(0.0)	0
Orlando-Kissimmee, FL	106	87	(82.1)	9	(8.5)	10	(9.4)	1
Oxnard-Thousand Oaks-Ventura, CA	65	48	(73.8)	12	(18.5)	5	(7.7)	0
Palm Bay-Melbourne-Titusville, FL	10	8	(80.0)	2	(20.0)	0	(0.0)	0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	183	(64.2)	73	(25.6)	29	(10.2)	7
Phoenix-Mesa-Scottsdale, AZ	150	116	(77.3)	32	(21.3)	2	(1.3)	2
Pittsburgh, PA	27	17	(63.0)	8	(29.6)	2	(7.4)	0
Portland-South Portland-Biddeford, ME	4	3	(75.0)	1	(25.0)	0	(0.0)	0
Portland-Vancouver-Beaverton, OR-WA	61	47	(77.0)	9	(14.8)	5	(8.2)	2
Poughkeepsie-Newburgh-Middletown, NY	15	6	(40.0)	8	(53.3)	1	(6.7)	0
Providence-New Bedford-Fall River, RI-MA	56	36	(64.3)	9	(16.1)	11	(19.6)	3
Provo-Orem, UT	1	1	(100.0)	0	(0.0)	0	(0.0)	0
Raleigh-Cary, NC	51	30	(58.8)	12	(23.5)	9	(17.6)	1
Richmond, VA	38	33	(86.8)	5	(13.2)	0	(0.0)	0
Riverside-San Bernardino-Ontario, CA	153	114	(74.5)	37	(24.2)	2	(1.3)	1
Rochester, NY	17	10	(58.8)	4	(23.5)	3	(17.6)	1
Sacramento-Arden Arcade-Roseville, CA	124	99	(79.8)	19	(15.3)	6	(4.8)	0
St. Louis, MO-IL	58	44	(75.9)	11	(19.0)	3	(5.2)	2
Salt Lake City, UT	16	10	(62.5)	4	(25.0)	2	(12.5)	0
San Antonio, TX	92	76	(82.6)	10	(10.9)	6	(6.5)	1
San Diego-Carlsbad-San Marcos, CA	264	169	(64.0)	53	(20.1)	42	(15.9)	9
San Francisco-Oakland-Fremont, CA	404	281	(69.6)	87	(21.5)	36	(8.9)	7
San Jose-Sunnyvale-Santa Clara, CA	198	132	(66.7)	49	(24.7)	17	(8.6)	3
Sarasota-Bradenton-Venice, FL	31	24	(77.4)	6	(19.4)	1	(3.2)	0
Scranton-Wilkes-Barre, PA	12	7	(58.3)	3	(25.0)	2	(16.7)	1
Seattle-Tacoma-Bellevue, WA	164	79	(48.2)	55	(33.5)	30	(18.3)	3
Springfield, MA	6	6	(100.0)	0	(0.0)	0	(0.0)	0
Stockton, CA	66	53	(80.3)	5	(7.6)	8	(12.1)	1
Syracuse, NY	22	19	(86.4)	3	(13.6)	0	(0.0)	0
Tampa-St. Petersburg-Clearwater, FL	111	95	(85.6)	12	(10.8)	4	(3.6)	1
Toledo, OH	8	5	(62.5)	3	(37.5)	0	(0.0)	0
Tucson, AZ	26	22	(84.6)	3	(11.5)	1	(3.8)	0
Tulsa, OK	22	21	(95.5)	1	(4.5)	0	(0.0)	0
Virginia Beach-Norfolk-Newport News, VA-NC	42	32	(76.2)	9	(21.4)	1	(2.4)	1
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	281	(70.1)	83	(20.7)	37	(9.2)	8
Wichita, KS	17	10	(58.8)	5	(29.4)	2	(11.8)	0
Worcester, MA	29	23	(79.3)	3	(10.3)	3	(10.3)	1
Youngstown-Warren-Boardman, OH-PA	6	2	(33.3)	2	(33.3)	2	(33.3)	1
Total - 101 Areas	10,170	7,101	(69.8)	2,143	(21.1)	919	(9.0)	180
San Juan-Caguas-Guaynabo, PR	75	65	(86.7)	9	(12.0)	1	(1.3)	1

¹Includes cases in persons with pulmonary listed as major site of disease and no additional site of disease.

²Includes cases in persons with pleural, lymphatic, bone and/or joint, meningeal, peritoneal, genitourinary, or other site, excluding pulmonary, listed as major site of disease.

³Includes military cases.

Note: 7 (<0.1%) cases had missing and/or unknown site of disease.

See Technical Notes for definition of MSA (page 9).

Table 48. Tuberculosis Cases by Age Group: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	Under 5	5–14	15–24	25–44	45–64	≥ 65	Unknown or Missing
Akron, OH	5	1	0	1	1	1	1	0
Albany-Schenectady-Troy, NY	4	0	0	2	1	1	0	0
Albuquerque, NM	23	0	1	0	5	10	7	0
Allentown-Bethlehem-Easton, PA-NJ	17	0	2	4	4	3	4	0
Atlanta-Sandy Springs-Marietta, GA	300	24	5	37	119	86	29	0
Augusta-Richmond County, GA-SC	26	0	0	1	14	5	6	0
Austin-Round Rock, TX	56	3	1	7	19	18	8	0
Bakersfield, CA	50	1	1	8	18	11	11	0
Baltimore-Towson, MD	89	2	1	11	27	22	26	0
Baton Rouge, LA	30	0	0	4	9	14	3	0
Birmingham-Hoover, AL	32	0	0	4	7	12	9	0
Boise City-Nampa, ID	6	0	1	2	1	0	2	0
Boston-Cambridge-Quincy, MA-NH	207	0	1	34	76	57	39	0
Bridgeport-Stamford-Norwalk, CT	36	1	0	8	14	6	7	0
Buffalo-Niagara Falls, NY	18	1	1	2	5	6	3	0
Cape Coral-Fort Myers, FL	32	2	1	3	7	13	6	0
Charleston-North Charleston, SC	31	1	0	3	17	9	1	0
Charlotte-Gastonia-Concord, NC-SC	76	5	2	5	31	27	6	0
Chattanooga, TN-GA	16	1	0	4	4	3	4	0
Chicago-Naperville-Joliet, IL	436	8	5	39	155	145	84	0
Cincinnati-Middleton, OH-KY-IN	42	1	0	7	12	12	10	0
Cleveland-Elyria-Mentor, OH	59	4	2	10	18	12	13	0
Colorado Springs, CO	10	0	0	2	2	4	2	0
Columbia, SC	24	1	0	2	9	4	8	0
Columbus, OH	66	5	6	7	27	11	10	0
Dallas-Fort Worth-Arlington, TX	372	13	2	48	151	129	29	0
Dayton, OH	10	0	0	2	2	2	4	0
Denver-Aurora, CO	67	4	4	9	23	16	11	0
Des Moines-West Des Moines, IA	7	0	0	0	3	4	0	0
Detroit-Warren-Livonia, MI	119	2	0	11	34	48	24	0
El Paso, TX	67	2	1	6	13	19	26	0
Fresno, CA	73	8	3	13	16	17	16	0
Grand Rapids-Wyoming, MI	14	1	0	2	4	4	3	0
Greensboro-High Point, NC	24	1	2	2	8	7	4	0
Greenville, SC	19	0	2	3	9	2	3	0
Harrisburg-Carlisle, PA	17	0	0	4	7	4	2	0
Hartford-West Hartford-East Hartford, CT	24	1	0	1	12	7	3	0
Honolulu, HI	101	0	2	10	20	41	28	0
Houston-Sugar Land-Baytown, TX	457	25	8	40	175	151	58	0
Indianapolis-Carmel, IN	40	1	1	5	13	14	6	0
Jackson, MS	35	0	3	1	16	12	3	0
Jacksonville, FL	107	3	2	9	25	52	16	0
Kansas City, MO-KS	46	2	2	4	20	10	8	0
Knoxville, TN	17	0	0	0	2	4	11	0
Lakeland, FL	21	2	0	1	4	9	5	0
Lancaster, PA	17	0	0	1	7	2	7	0
Las Vegas-Paradise, NV	91	11	1	8	24	32	15	0
Little Rock-North Little Rock-Conway, AR	16	2	0	2	5	4	3	0
Los Angeles-Long Beach-Santa Ana, CA	1,054	30	27	90	340	325	242	0
Louisville-Jefferson County, KY-IN	34	1	1	6	11	11	4	0
Madison, WI	8	0	0	0	5	1	2	0
McAllen-Edinburg-Mission, TX	90	7	1	13	30	25	14	0
Memphis, TN-MS-AR	96	7	1	8	38	28	14	0
Miami-Fort Lauderdale-Pompano Beach, FL	349	16	3	39	113	118	60	0
Milwaukee-Waukesha-West Allis, WI	35	1	0	7	12	8	7	0

Table 48. (Cont'd) Tuberculosis Cases by Age Group: Metropolitan Statistical Areas with ≥500,000 Population, 2008

Metropolitan Statistical Area	Total Cases	Under 5	5–14	15–24	25–44	45–64	≥65	Unknown or Missing
Minneapolis-St. Paul-Bloomington, MN-WI	165	8	9	46	61	26	15	0
Modesto, CA	21	0	0	4	8	4	5	0
Nashville-Davidson-Murfreesboro-Franklin, TN	100	4	1	5	37	39	14	0
New Haven-Milford, CT	26	0	0	3	10	8	5	0
New Orleans-Metairie-Kenner, LA	72	1	0	10	25	27	9	0
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	14	27	177	546	433	249	0
Ogden-Clearfield, UT	4	0	0	0	0	1	3	0
Oklahoma City, OK	35	5	0	3	9	14	3	1
Omaha-Council Bluffs, NE-IA	25	4	0	4	8	8	1	0
Orlando-Kissimmee, FL	106	5	0	9	35	37	20	0
Oxnard-Thousand Oaks-Ventura, CA	65	1	1	9	21	17	16	0
Palm Bay-Melbourne-Titusville, FL	10	0	0	0	2	6	2	0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	22	25	27	89	76	46	0
Phoenix-Mesa-Scottsdale, AZ	150	10	5	19	66	27	23	0
Pittsburgh, PA	27	0	1	2	8	7	9	0
Portland-South Portland-Biddeford, ME	4	0	0	0	1	2	1	0
Portland-Vancouver-Beaverton, OR-WA	61	1	2	9	22	13	14	0
Poughkeepsie-Newburgh-Middletown, NY	15	0	0	0	5	7	3	0
Providence-New Bedford-Fall River, RI-MA	56	3	3	3	20	16	11	0
Provo-Orem, UT	1	0	0	1	0	0	0	0
Raleigh-Cary, NC	51	3	1	4	22	16	5	0
Richmond, VA	38	3	0	9	13	7	6	0
Riverside-San Bernardino-Ontario, CA	153	3	3	18	33	61	35	0
Rochester, NY	17	2	0	3	6	3	3	0
Sacramento-Arden Arcade-Roseville, CA	124	1	4	10	39	37	33	0
St. Louis, MO-IL	58	1	0	7	21	17	12	0
Salt Lake City, UT	16	1	0	4	5	3	3	0
San Antonio, TX	92	1	2	6	26	42	15	0
San Diego-Carlsbad-San Marcos, CA	264	5	12	40	79	82	46	0
San Francisco-Oakland-Fremont, CA	404	11	4	36	134	105	114	0
San Jose-Sunnyvale-Santa Clara, CA	198	5	2	17	62	65	47	0
Sarasota-Bradenton-Venice, FL	31	1	1	5	7	11	6	0
Scranton-Wilkes-Barre, PA	12	0	0	0	3	0	9	0
Seattle-Tacoma-Bellevue, WA	164	8	6	24	64	31	31	0
Springfield, MA	6	0	0	1	1	2	2	0
Stockton, CA	66	4	3	3	14	22	20	0
Syracuse, NY	22	1	2	4	7	6	2	0
Tampa-St. Petersburg-Clearwater, FL	111	3	1	10	28	50	19	0
Toledo, OH	8	1	0	1	3	2	1	0
Tucson, AZ	26	3	1	3	3	10	6	0
Tulsa, OK	22	2	0	1	6	6	7	0
Virginia Beach-Norfolk-Newport News, VA-NC	42	1	1	4	11	11	14	0
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	11	4	56	152	114	64	0
Wichita, KS	17	1	1	3	5	4	3	0
Worcester, MA	29	0	1	5	11	9	3	0
Youngstown-Warren-Boardman, OH-PA	6	0	0	0	1	1	4	0
Total - 101 Areas	10,170	351	219	1,157	3,473	3,083	1,886	1
San Juan-Caguas-Guaynabo, PR	75	1	1	4	22	31	16	0

Note: See Technical Notes for definition of MSA (page 9).

Table 49. Tuberculosis Cases by Hispanic Ethnicity and Non-Hispanic Race: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	Hispanic or Latino ¹	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Multiple Race ²	Unknown or Missing
Akron, OH	5	0	0	3	0	0	2	0	0
Albany-Schenectady-Troy, NY	4	0	0	2	1	0	1	0	0
Albuquerque, NM	23	15	4	4	0	0	0	0	0
Allentown-Bethlehem-Easton, PA-NJ	17	6	0	4	2	0	4	1	0
Atlanta-Sandy Springs-Marietta, GA	300	52	0	72	140	1	35	0	0
Augusta-Richmond County, GA-SC	26	1	0	2	16	0	7	0	0
Austin-Round Rock, TX	56	23	1	10	12	0	10	0	0
Bakersfield, CA	50	32	0	7	4	0	7	0	0
Baltimore-Towson, MD	89	8	0	30	38	0	13	0	0
Baton Rouge, LA	30	0	0	5	15	0	8	0	2
Birmingham-Hoover, AL	32	4	0	2	18	0	8	0	0
Boise City-Nampa, ID	6	2	0	0	1	1	2	0	0
Boston-Cambridge-Quincy, MA-NH	207	36	0	72	59	0	38	2	0
Bridgeport-Stamford-Norwalk, CT	36	13	0	11	6	0	6	0	0
Buffalo-Niagara Falls, NY	18	0	0	6	6	0	6	0	0
Cape Coral-Fort Myers, FL	32	13	0	0	9	0	10	0	0
Charleston-North Charleston, SC	31	7	0	7	11	0	6	0	0
Charlotte-Gastonia-Concord, NC-SC	76	17	0	10	35	0	11	3	0
Chattanooga, TN-GA	16	7	0	2	2	0	4	0	1
Chicago-Naperville-Joliet, IL	436	96	0	140	125	0	73	0	2
Cincinnati-Middleton, OH-KY-IN	42	12	0	6	6	0	16	2	0
Cleveland-Elyria-Mentor, OH	59	5	0	11	35	0	8	0	0
Colorado Springs, CO	10	4	0	1	2	0	3	0	0
Columbia, SC	24	6	0	3	11	0	4	0	0
Columbus, OH	66	11	0	12	34	0	9	0	0
Dallas-Fort Worth-Arlington, TX	372	118	0	62	129	1	61	1	0
Dayton, OH	10	0	1	2	2	0	5	0	0
Denver-Aurora, CO	67	19	1	25	13	1	7	1	0
Des Moines-West Des Moines, IA	7	1	0	5	0	0	1	0	0
Detroit-Warren-Livonia, MI	119	9	0	23	53	0	32	0	2
El Paso, TX	67	60	0	0	0	0	7	0	0
Fresno, CA	73	33	0	31	0	0	9	0	0
Grand Rapids-Wyoming, MI	14	4	0	5	1	0	4	0	0
Greensboro-High Point, NC	24	1	0	6	13	0	3	1	0
Greenville, SC	19	8	0	7	3	0	1	0	0
Harrisburg-Carlisle, PA	17	1	0	7	6	0	3	0	0
Hartford-West Hartford-East Hartford, CT	24	6	0	10	4	0	4	0	0
Honolulu, HI	101	1	0	74	1	22	2	1	0
Houston-Sugar Land-Baytown, TX	457	189	0	68	128	0	71	1	0
Indianapolis-Carmel, IN	40	11	0	9	10	0	10	0	0
Jackson, MS	35	2	0	1	24	0	8	0	0
Jacksonville, FL	107	6	0	16	59	0	26	0	0
Kansas City, MO-KS	46	12	0	13	13	0	8	0	0
Knoxville, TN	17	1	0	1	3	0	12	0	0
Lakeland, FL	21	5	0	1	12	0	3	0	0
Lancaster, PA	17	2	0	1	5	0	9	0	0
Las Vegas-Paradise, NV	91	34	1	32	9	0	15	0	0
Little Rock-North Little Rock-Conway, AR	16	3	0	1	6	0	5	0	1
Los Angeles-Long Beach-Santa Ana, CA	1,054	453	1	420	99	2	77	2	0
Louisville-Jefferson County, KY-IN	34	2	0	0	13	0	19	0	0
Madison, WI	8	3	0	4	0	0	1	0	0
McAllen-Edinburg-Mission, TX	90	85	0	1	0	0	3	1	0
Memphis, TN-MS-AR	96	12	1	10	63	0	10	0	0
Miami-Fort Lauderdale-Pompano Beach, FL	349	130	0	15	161	0	41	2	0
Milwaukee-Waukesha-West Allis, WI	35	6	0	10	11	0	7	0	1
Minneapolis-St. Paul-Bloomington, MN-WI	165	11	2	44	99	0	9	0	0
Modesto, CA	21	11	0	7	0	0	3	0	0

Table 49. (Cont'd) Tuberculosis Cases by Hispanic Ethnicity and Non-Hispanic Race: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	Hispanic or Latino ¹	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Multiple Race ²	Unknown or Missing
Nashville-Davidson-Murfreesboro-Franklin, TN	100	15	0	11	43	0	31	0	0
New Haven-Milford, CT	26	8	0	8	6	0	4	0	0
New Orleans-Metairie-Kenner, LA	72	13	0	6	32	0	21	0	0
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	465	1	508	318	2	139	7	6
Ogden-Clearfield, UT	4	2	0	0	0	1	1	0	0
Oklahoma City, OK	35	5	4	3	15	0	8	0	0
Omaha-Council Bluffs, NE-IA	25	9	0	4	6	0	6	0	0
Orlando-Kissimmee, FL	106	20	1	17	52	0	16	0	0
Oxnard-Thousand Oaks-Ventura, CA	65	33	0	22	1	0	9	0	0
Palm Bay-Melbourne-Titusville, FL	10	1	0	0	0	0	9	0	0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	26	0	100	122	0	37	0	0
Phoenix-Mesa-Scottsdale, AZ	150	85	5	29	12	0	17	2	0
Pittsburgh, PA	27	1	0	7	6	0	13	0	0
Portland-South Portland-Biddeford, ME	4	0	0	1	2	0	1	0	0
Portland-Vancouver-Beaverton, OR-WA	61	13	0	30	3	3	12	0	0
Poughkeepsie-Newburgh-Middletown, NY	15	4	0	4	3	0	4	0	0
Providence-New Bedford-Fall River, RI-MA	56	12	1	15	13	0	15	0	0
Provo-Orem, UT	1	0	0	0	0	0	1	0	0
Raleigh-Cary, NC	51	17	0	10	17	0	6	1	0
Richmond, VA	38	8	0	11	15	0	4	0	0
Riverside-San Bernardino-Ontario, CA	153	70	1	51	7	1	21	2	0
Rochester, NY	17	2	0	4	6	0	5	0	0
Sacramento-Arden Arcade-Roseville, CA	124	21	0	71	10	1	21	0	0
St. Louis, MO-IL	58	4	1	11	26	1	15	0	0
Salt Lake City, UT	16	6	0	6	3	0	1	0	0
San Antonio, TX	92	52	0	11	10	0	18	1	0
San Diego-Carlsbad-San Marcos, CA	264	138	2	82	16	0	25	1	0
San Francisco-Oakland-Fremont, CA	404	97	1	215	47	6	37	1	0
San Jose-Sunnyvale-Santa Clara, CA	198	28	0	151	8	2	9	0	0
Sarasota-Bradenton-Venice, FL	31	8	0	4	7	0	12	0	0
Scranton-Wilkes-Barre, PA	12	2	0	2	0	0	8	0	0
Seattle-Tacoma-Bellevue, WA	164	28	2	59	47	10	18	0	0
Springfield, MA	6	1	0	3	1	0	1	0	0
Stockton, CA	66	19	0	34	3	0	9	0	1
Syracuse, NY	22	0	0	12	5	0	5	0	0
Tampa-St. Petersburg-Clearwater, FL	111	25	0	26	28	0	31	0	1
Toledo, OH	8	2	0	2	3	0	1	0	0
Tucson, AZ	26	10	2	5	5	0	4	0	0
Tulsa, OK	22	3	4	4	3	0	8	0	0
Virginia Beach-Norfolk-Newport News, VA-NC	42	5	0	16	12	0	9	0	0
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	93	0	132	147	0	29	0	0
Wichita, KS	17	4	0	6	4	0	3	0	0
Worcester, MA	29	2	0	15	7	0	5	0	0
Youngstown-Warren-Boardman, OH-PA	6	0	0	1	2	0	3	0	0
Total - 101 Areas	10,170	2,966	37	3,042	2,601	55	1,419	33	17
San Juan-Caguas-Guaynabo, PR	75	74	0	1	0	0	0	0	0

¹Persons of Hispanic or Latino origin may be of any race or multiple race.

²Indicates two or more races reported for a person.

Note: Case counts for race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple Race does not include persons of Hispanic ethnicity.

See Technical Notes for definition of MSA and Hispanic ethnicity and non-Hispanic race (page 9).

Table 50. Tuberculosis Cases and Percentages, U.S.-born Persons and Foreign-born Persons: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown	
		No.	(%)	No.	(%)	No.	(%)
Akron, OH	5	3	(60.0)	2	(40.0)	0	(0.0)
Albany-Schenectady-Troy, NY	4	2	(50.0)	2	(50.0)	0	(0.0)
Albuquerque, NM	23	10	(43.5)	13	(56.5)	0	(0.0)
Allentown-Bethlehem-Easton, PA-NJ	17	7	(41.2)	9	(52.9)	1	(5.9)
Atlanta-Sandy Springs-Marietta, GA	300	154	(51.3)	146	(48.7)	0	(0.0)
Augusta-Richmond County, GA-SC	26	23	(88.5)	3	(11.5)	0	(0.0)
Austin-Round Rock, TX	56	30	(53.6)	26	(46.4)	0	(0.0)
Bakersfield, CA	50	15	(30.0)	34	(68.0)	1	(2.0)
Baltimore-Towson, MD	89	42	(47.2)	47	(52.8)	0	(0.0)
Baton Rouge, LA	30	22	(73.3)	8	(26.7)	0	(0.0)
Birmingham-Hoover, AL	32	25	(78.1)	7	(21.9)	0	(0.0)
Boise City-Nampa, ID	6	2	(33.3)	4	(66.7)	0	(0.0)
Boston-Cambridge-Quincy, MA-NH	207	34	(16.4)	173	(83.6)	0	(0.0)
Bridgeport-Stamford-Norwalk, CT	36	5	(13.9)	31	(86.1)	0	(0.0)
Buffalo-Niagara Falls, NY	18	10	(55.6)	8	(44.4)	0	(0.0)
Cape Coral-Fort Myers, FL	32	20	(62.5)	12	(37.5)	0	(0.0)
Charleston-North Charleston, SC	31	19	(61.3)	12	(38.7)	0	(0.0)
Charlotte-Gastonia-Concord, NC-SC	76	52	(68.4)	24	(31.6)	0	(0.0)
Chattanooga, TN-GA	16	8	(50.0)	8	(50.0)	0	(0.0)
Chicago-Naperville-Joliet, IL	436	168	(38.5)	268	(61.5)	0	(0.0)
Cincinnati-Middleton, OH-KY-IN	42	17	(40.5)	25	(59.5)	0	(0.0)
Cleveland-Elyria-Mentor, OH	59	43	(72.9)	16	(27.1)	0	(0.0)
Colorado Springs, CO	10	3	(30.0)	7	(70.0)	0	(0.0)
Columbia, SC	24	14	(58.3)	10	(41.7)	0	(0.0)
Columbus, OH	66	26	(39.4)	40	(60.6)	0	(0.0)
Dallas-Fort Worth-Arlington, TX	372	197	(53.0)	175	(47.0)	0	(0.0)
Dayton, OH	10	6	(60.0)	4	(40.0)	0	(0.0)
Denver-Aurora, CO	67	17	(25.4)	50	(74.6)	0	(0.0)
Des Moines-West Des Moines, IA	7	1	(14.3)	6	(85.7)	0	(0.0)
Detroit-Warren-Livonia, MI	119	71	(59.7)	47	(39.5)	1	(0.8)
El Paso, TX	67	27	(40.3)	40	(59.7)	0	(0.0)
Fresno, CA	73	26	(35.6)	47	(64.4)	0	(0.0)
Grand Rapids-Wyoming, MI	14	4	(28.6)	10	(71.4)	0	(0.0)
Greensboro-High Point, NC	24	12	(50.0)	12	(50.0)	0	(0.0)
Greenville, SC	19	4	(21.1)	15	(78.9)	0	(0.0)
Harrisburg-Carlisle, PA	17	4	(23.5)	11	(64.7)	2	(11.8)
Hartford-West Hartford-East Hartford, CT	24	6	(25.0)	18	(75.0)	0	(0.0)
Honolulu, HI	101	33	(32.7)	68	(67.3)	0	(0.0)
Houston-Sugar Land-Baytown, TX	457	242	(53.0)	215	(47.0)	0	(0.0)
Indianapolis-Carmel, IN	40	19	(47.5)	21	(52.5)	0	(0.0)
Jackson, MS	35	32	(91.4)	3	(8.6)	0	(0.0)
Jacksonville, FL	107	82	(76.6)	25	(23.4)	0	(0.0)
Kansas City, MO-KS	46	15	(32.6)	31	(67.4)	0	(0.0)
Knoxville, TN	17	13	(76.5)	2	(11.8)	2	(11.8)
Lakeland, FL	21	14	(66.7)	7	(33.3)	0	(0.0)
Lancaster, PA	17	12	(70.6)	5	(29.4)	0	(0.0)
Las Vegas-Paradise, NV	91	31	(34.1)	60	(65.9)	0	(0.0)
Little Rock-North Little Rock-Conway, AR	16	11	(68.8)	4	(25.0)	1	(6.3)
Los Angeles-Long Beach-Santa Ana, CA	1,054	231	(21.9)	819	(77.7)	4	(0.4)
Louisville-Jefferson County, KY-IN	34	20	(58.8)	14	(41.2)	0	(0.0)
Madison, WI	8	1	(12.5)	6	(75.0)	1	(12.5)
McAllen-Edinburg-Mission, TX	90	27	(30.0)	63	(70.0)	0	(0.0)
Memphis, TN-MS-AR	96	71	(74.0)	25	(26.0)	0	(0.0)
Miami-Fort Lauderdale-Pompano Beach, FL	349	122	(35.0)	227	(65.0)	0	(0.0)
Milwaukee-Waukesha-West Allis, WI	35	15	(42.9)	17	(48.6)	3	(8.6)
Minneapolis-St. Paul-Bloomington, MN-WI	165	30	(18.2)	135	(81.8)	0	(0.0)

Table 50. (Cont'd) Tuberculosis Cases and Percentages, U.S.-born Persons and Foreign-born Persons: Metropolitan Statistical Areas with $\geq 500,000$ Population, 2008

Metropolitan Statistical Area	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown	
		No.	(%)	No.	(%)	No.	(%)
Modesto, CA	21	3	(14.3)	18	(85.7)	0	(0.0)
Nashville-Davidson-Murfreesboro-Franklin, TN	100	60	(60.0)	40	(40.0)	0	(0.0)
New Haven-Milford, CT	26	7	(26.9)	19	(73.1)	0	(0.0)
New Orleans-Metairie-Kenner, LA	72	52	(72.2)	20	(27.8)	0	(0.0)
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	324	(22.4)	1,118	(77.3)	4	(0.3)
Ogden-Clearfield, UT	4	1	(25.0)	3	(75.0)	0	(0.0)
Oklahoma City, OK	35	27	(77.1)	6	(17.1)	2	(5.7)
Omaha-Council Bluffs, NE-IA	25	10	(40.0)	15	(60.0)	0	(0.0)
Orlando-Kissimmee, FL	106	62	(58.5)	44	(41.5)	0	(0.0)
Oxnard-Thousand Oaks-Ventura, CA	65	15	(23.1)	50	(76.9)	0	(0.0)
Palm Bay-Melbourne-Titusville, FL	10	10	(100.0)	0	(0.0)	0	(0.0)
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	120	(42.1)	146	(51.2)	19	(6.7)
Phoenix-Mesa-Scottsdale, AZ	150	36	(24.0)	114	(76.0)	0	(0.0)
Pittsburgh, PA	27	15	(55.6)	12	(44.4)	0	(0.0)
Portland-South Portland-Biddeford, ME	4	1	(25.0)	3	(75.0)	0	(0.0)
Portland-Vancouver-Beaverton, OR-WA	61	14	(23.0)	47	(77.0)	0	(0.0)
Poughkeepsie-Newburgh-Middletown, NY	15	6	(40.0)	7	(46.7)	2	(13.3)
Providence-New Bedford-Fall River, RI-MA	56	15	(26.8)	41	(73.2)	0	(0.0)
Provo-Orem, UT	1	1	(100.0)	0	(0.0)	0	(0.0)
Raleigh-Cary, NC	51	28	(54.9)	23	(45.1)	0	(0.0)
Richmond, VA	38	20	(52.6)	18	(47.4)	0	(0.0)
Riverside-San Bernardino-Ontario, CA	153	42	(27.5)	111	(72.5)	0	(0.0)
Rochester, NY	17	6	(35.3)	11	(64.7)	0	(0.0)
Sacramento-Arden Arcade-Roseville, CA	124	34	(27.4)	86	(69.4)	4	(3.2)
St. Louis, MO-IL	58	29	(50.0)	29	(50.0)	0	(0.0)
Salt Lake City, UT	16	4	(25.0)	12	(75.0)	0	(0.0)
San Antonio, TX	92	57	(62.0)	35	(38.0)	0	(0.0)
San Diego-Carlsbad-San Marcos, CA	264	78	(29.5)	185	(70.1)	1	(0.4)
San Francisco-Oakland-Fremont, CA	404	101	(25.0)	303	(75.0)	0	(0.0)
San Jose-Sunnyvale-Santa Clara, CA	198	19	(9.6)	179	(90.4)	0	(0.0)
Sarasota-Bradenton-Venice, FL	31	17	(54.8)	14	(45.2)	0	(0.0)
Scranton-Wilkes-Barre, PA	12	6	(50.0)	6	(50.0)	0	(0.0)
Seattle-Tacoma-Bellevue, WA	164	38	(23.2)	126	(76.8)	0	(0.0)
Springfield, MA	6	2	(33.3)	4	(66.7)	0	(0.0)
Stockton, CA	66	17	(25.8)	48	(72.7)	1	(1.5)
Syracuse, NY	22	2	(9.1)	20	(90.9)	0	(0.0)
Tampa-St. Petersburg-Clearwater, FL	111	61	(55.0)	50	(45.0)	0	(0.0)
Toledo, OH	8	3	(37.5)	5	(62.5)	0	(0.0)
Tucson, AZ	26	12	(46.2)	14	(53.8)	0	(0.0)
Tulsa, OK	22	14	(63.6)	8	(36.4)	0	(0.0)
Virginia Beach-Norfolk-Newport News, VA-NC	42	18	(42.9)	24	(57.1)	0	(0.0)
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	76	(19.0)	325	(81.0)	0	(0.0)
Wichita, KS	17	6	(35.3)	11	(64.7)	0	(0.0)
Worcester, MA	29	3	(10.3)	26	(89.7)	0	(0.0)
Youngstown-Warren-Boardman, OH-PA	6	5	(83.3)	1	(16.7)	0	(0.0)
Total - 101 Areas	10,170	3,627	(35.7)	6,494	(63.9)	49	(0.5)
San Juan-Caguas-Guaynabo, PR	75	63	(84.0)	12	(16.0)	0	(0.0)

¹Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and U.S. minor and outlying Pacific islands.

Note: See Technical Notes for definition of MSA (page 9).

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Surveillance Slide Set

2008

Tuberculosis in the United States

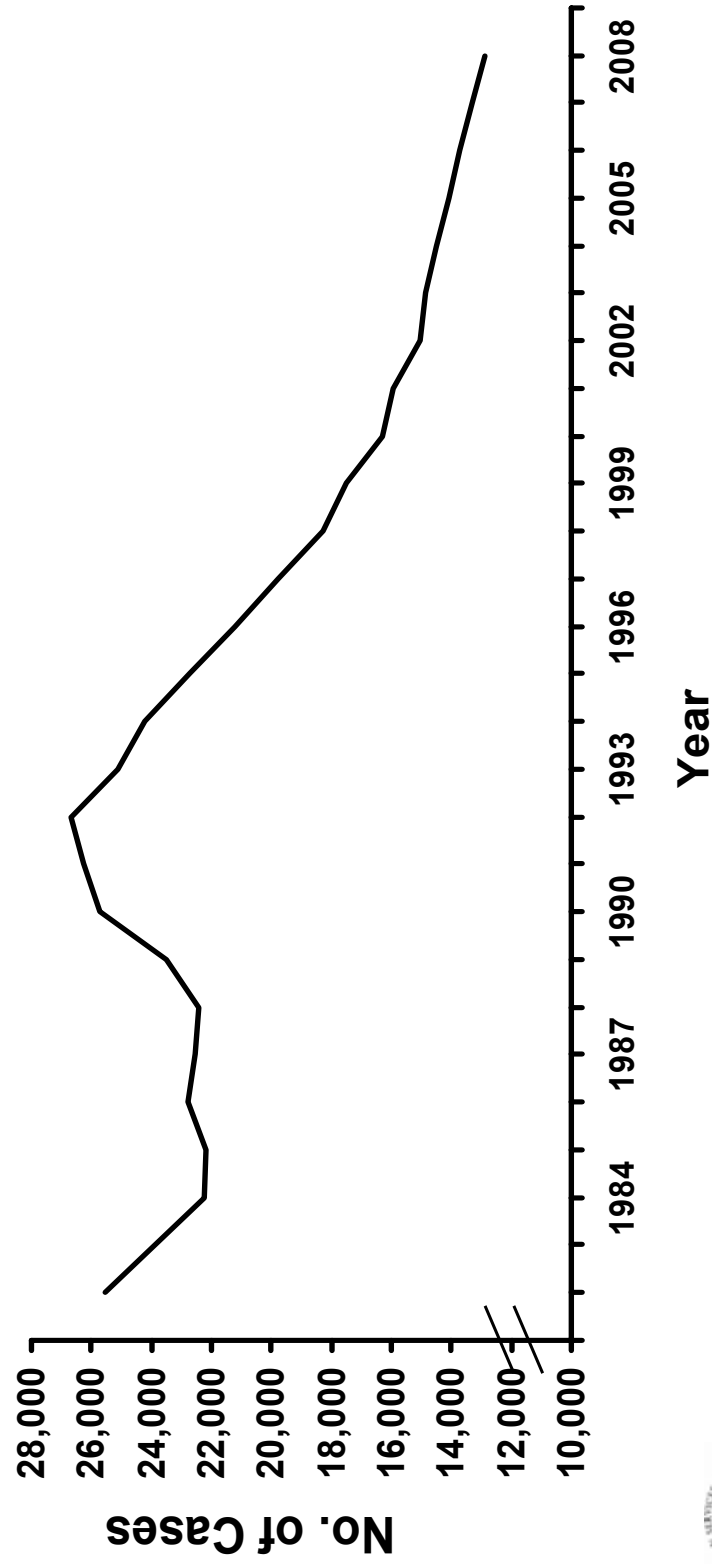
National Tuberculosis Surveillance System

Highlights from 2008

Division of Tuberculosis Elimination
Centers for Disease Control and Prevention



Reported TB Cases* United States, 1982–2008



*Updated as of May 20, 2009.



TB Morbidity

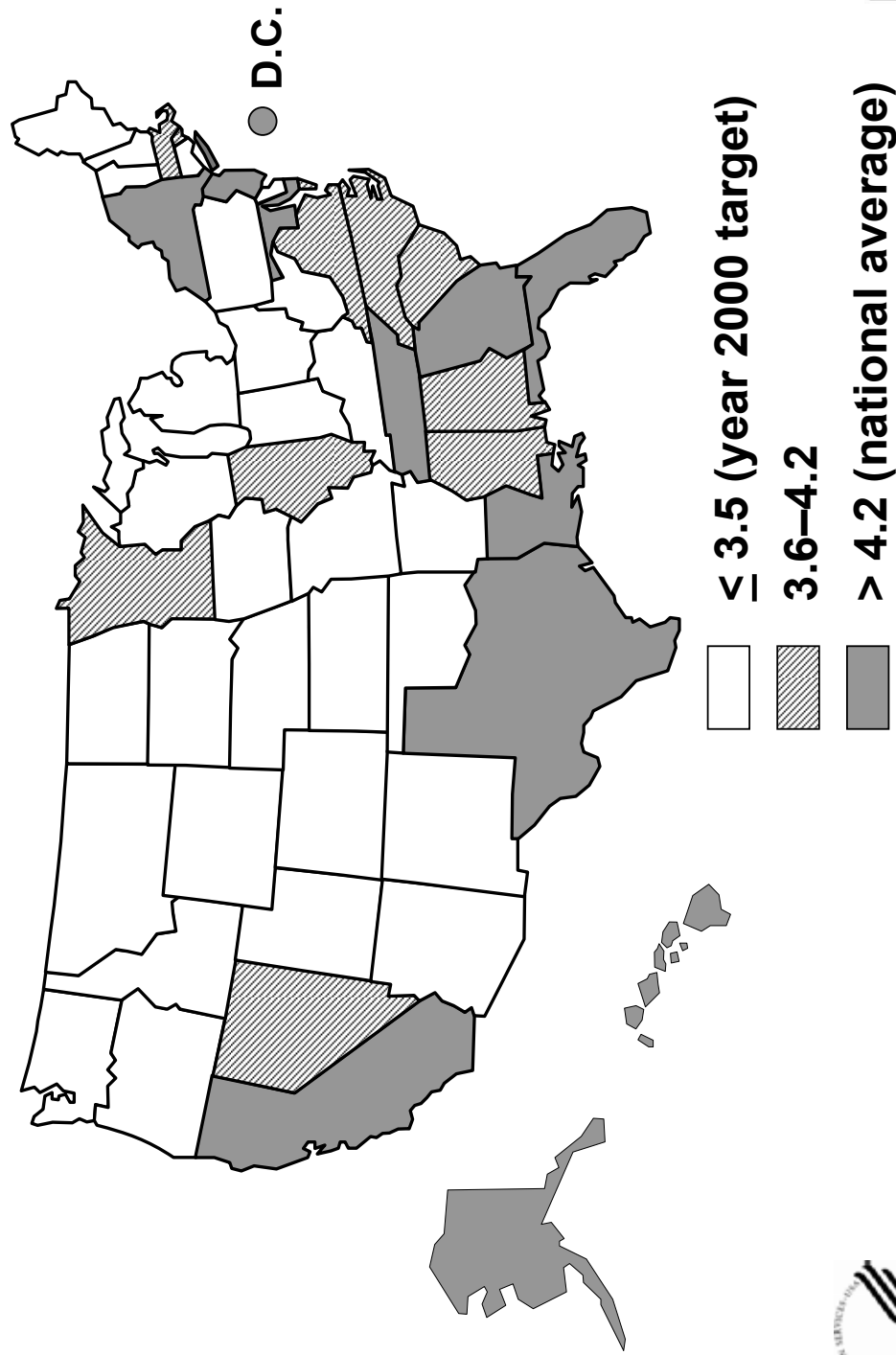
United States, 2003–2008

Year	No.	Rate*
2003	14,836	5.1
2004	14,500	4.9
2005	14,067	4.8
2006	13,727	4.6
2007	13,288	4.4
2008	12,904	4.2

*Cases per 100,000, updated as of May 20, 2009.



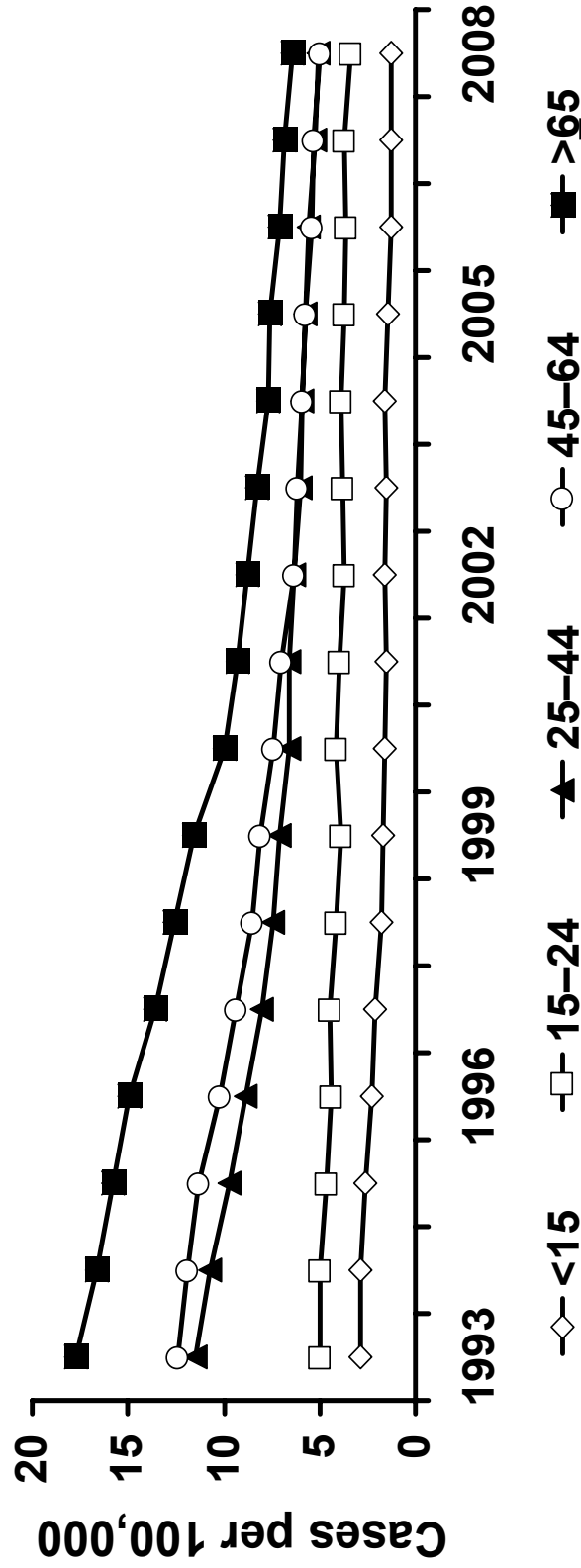
TB Case Rates,* United States, 2008



*Cases per 100,000



TB Case Rates* by Age Group United States, 1993–2008

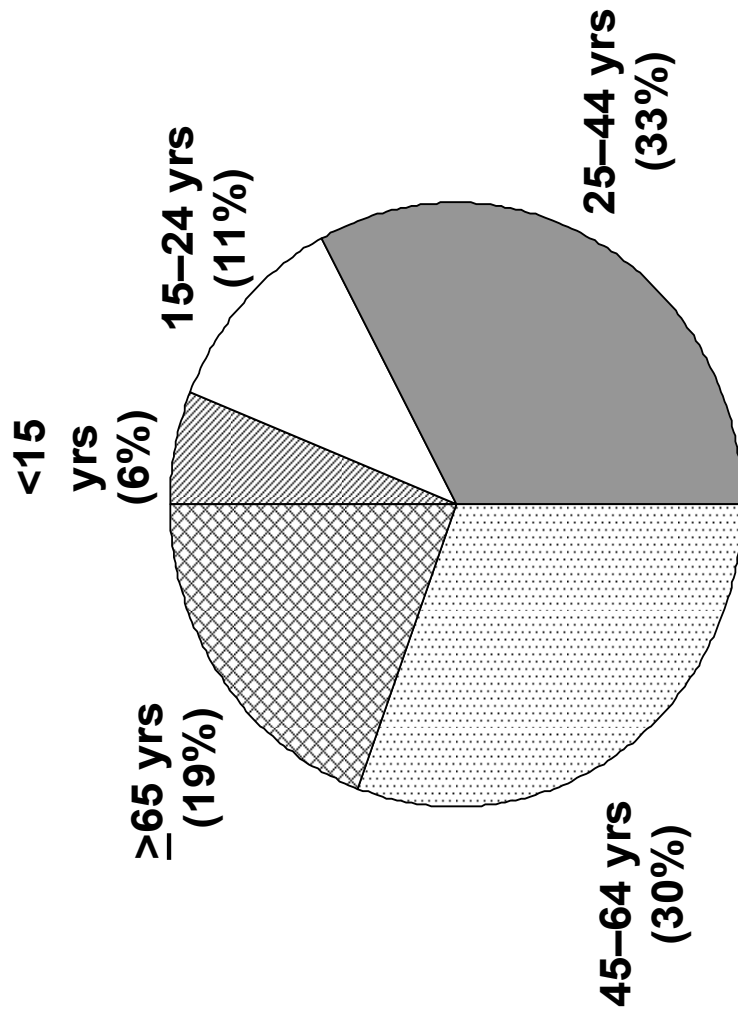


Age Group (years)

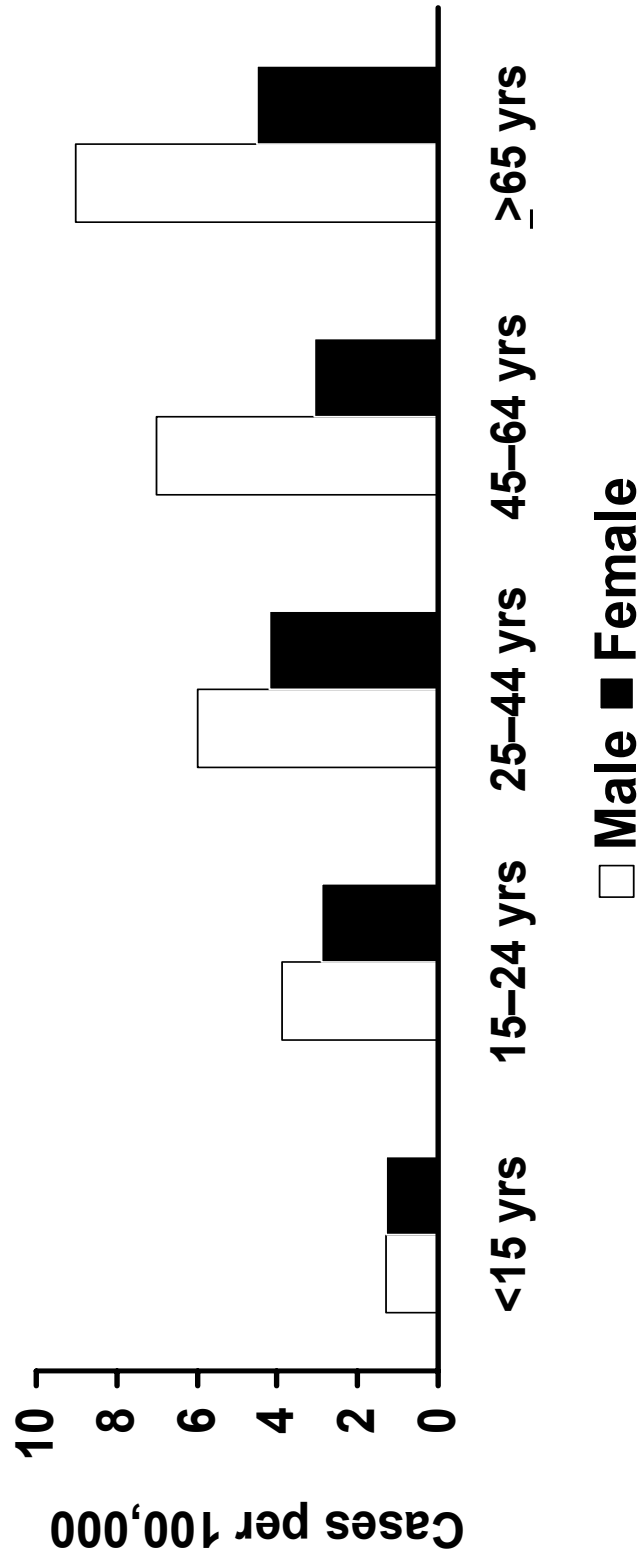
*Updated as of May 20, 2009.



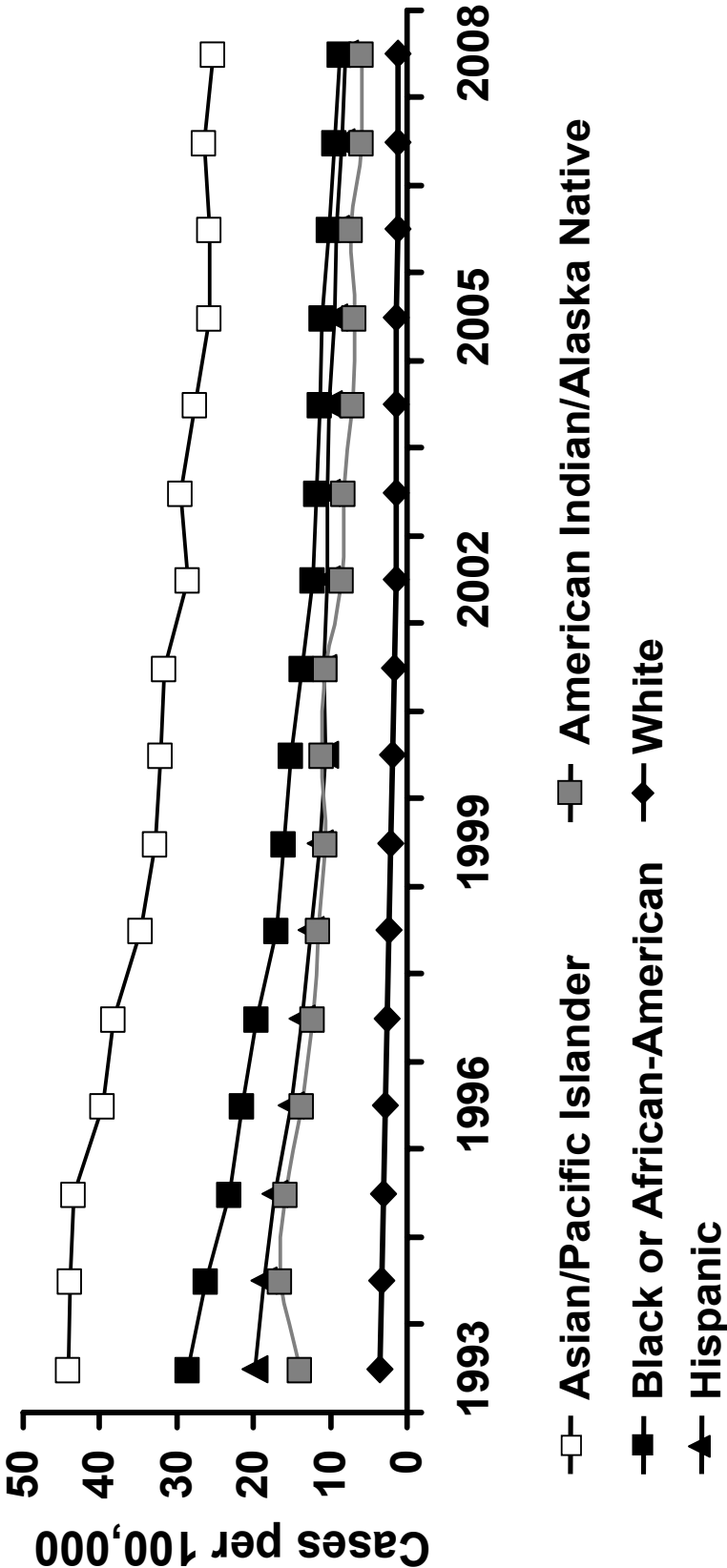
Reported TB Cases by Age Group, United States, 2008



TB Case Rates by Age Group and Sex, United States, 2008



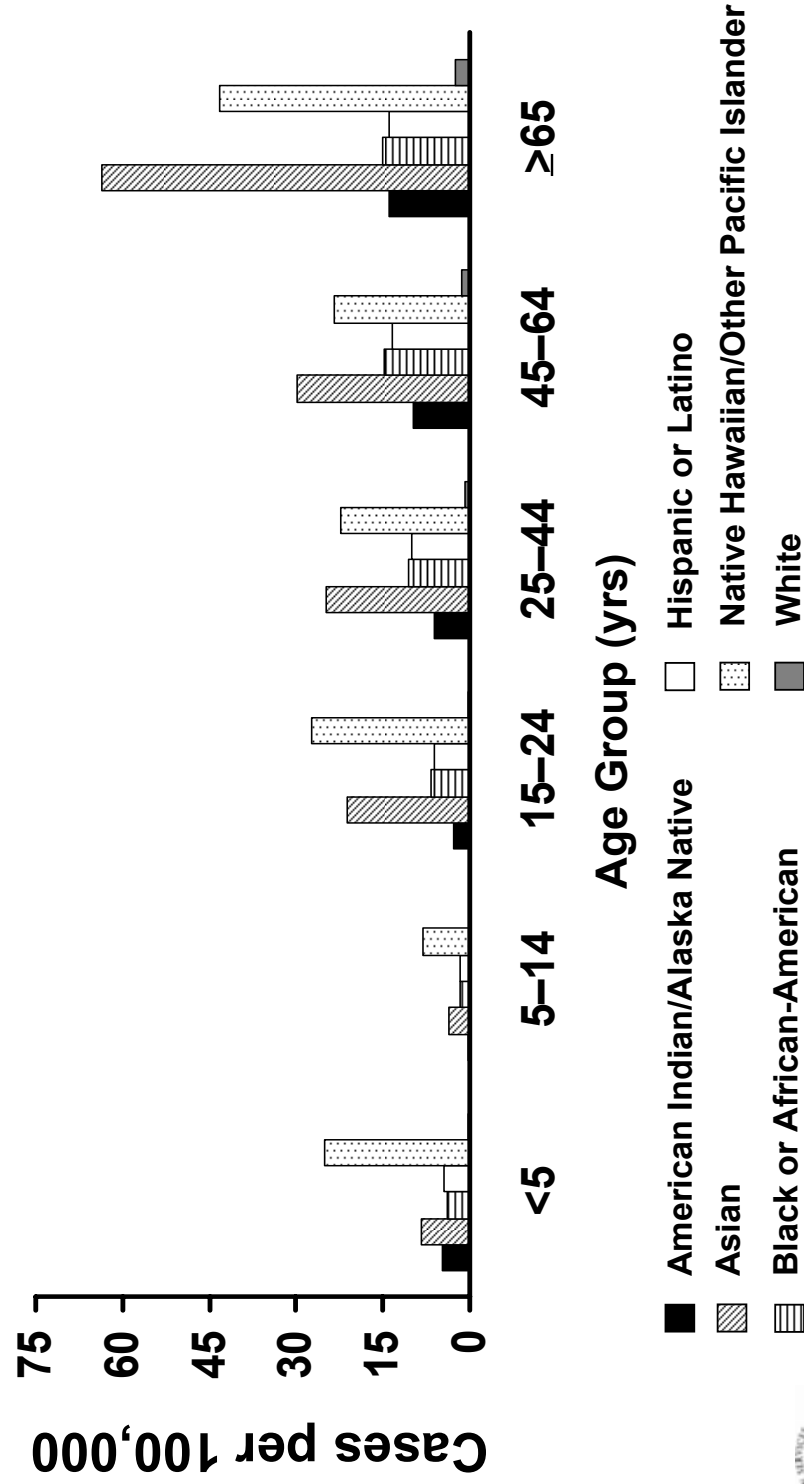
TB Case Rates by Race/Ethnicity* United States, 1993–2008**



*All races are non-Hispanic. In 2003, Asian/Pacific Islander category includes persons who reported race as Asian only and/or Native Hawaiian or Other Pacific Islander only.
 **Updated as of May 20, 2009.



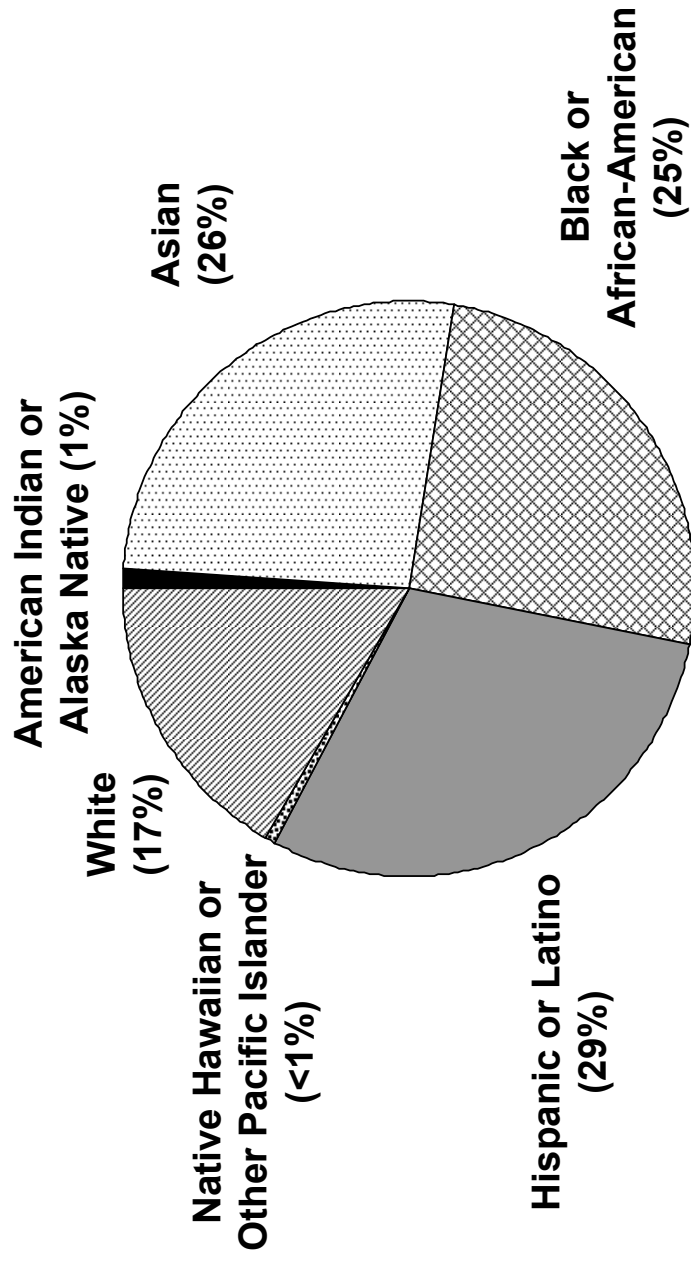
TB Case Rates by Age Group and Race/Ethnicity,* United States, 2008



*All races are non-Hispanic. Persons reporting two or more races accounted for less than 1% of all cases.



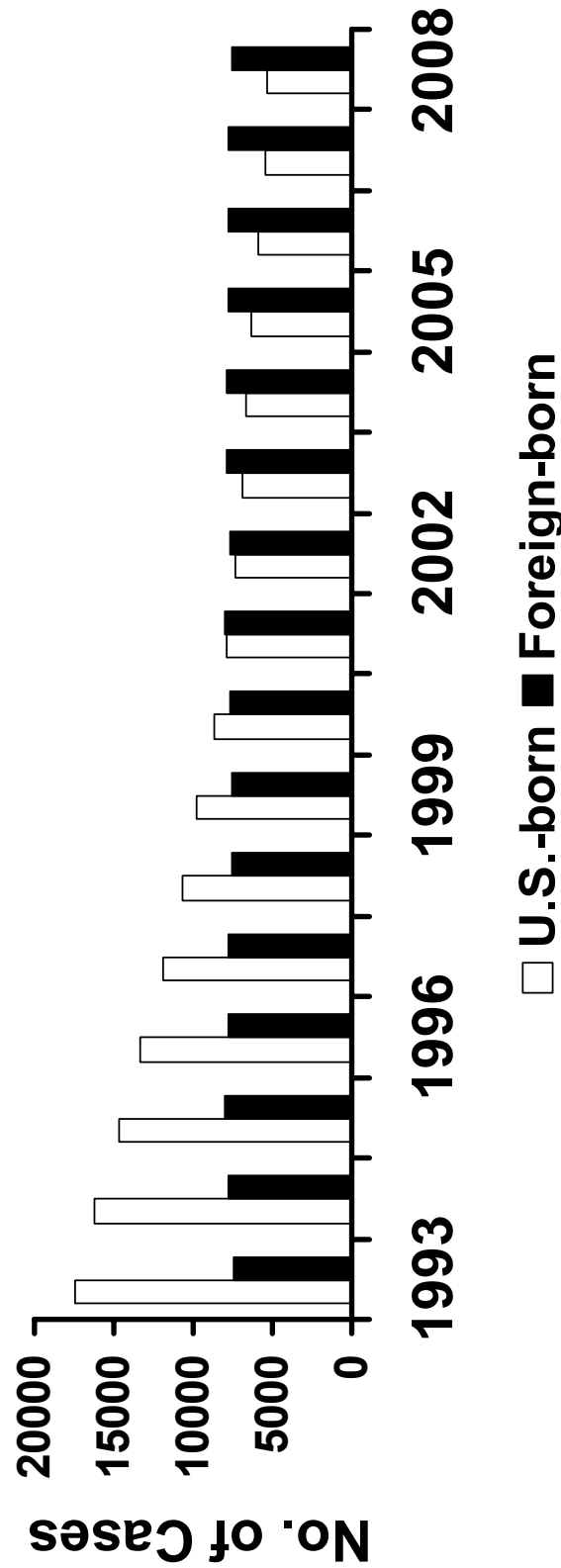
Reported TB Cases by Race/Ethnicity* United States, 2008



*All races are non-Hispanic. Persons reporting two or more races accounted for less than 1% of all cases.



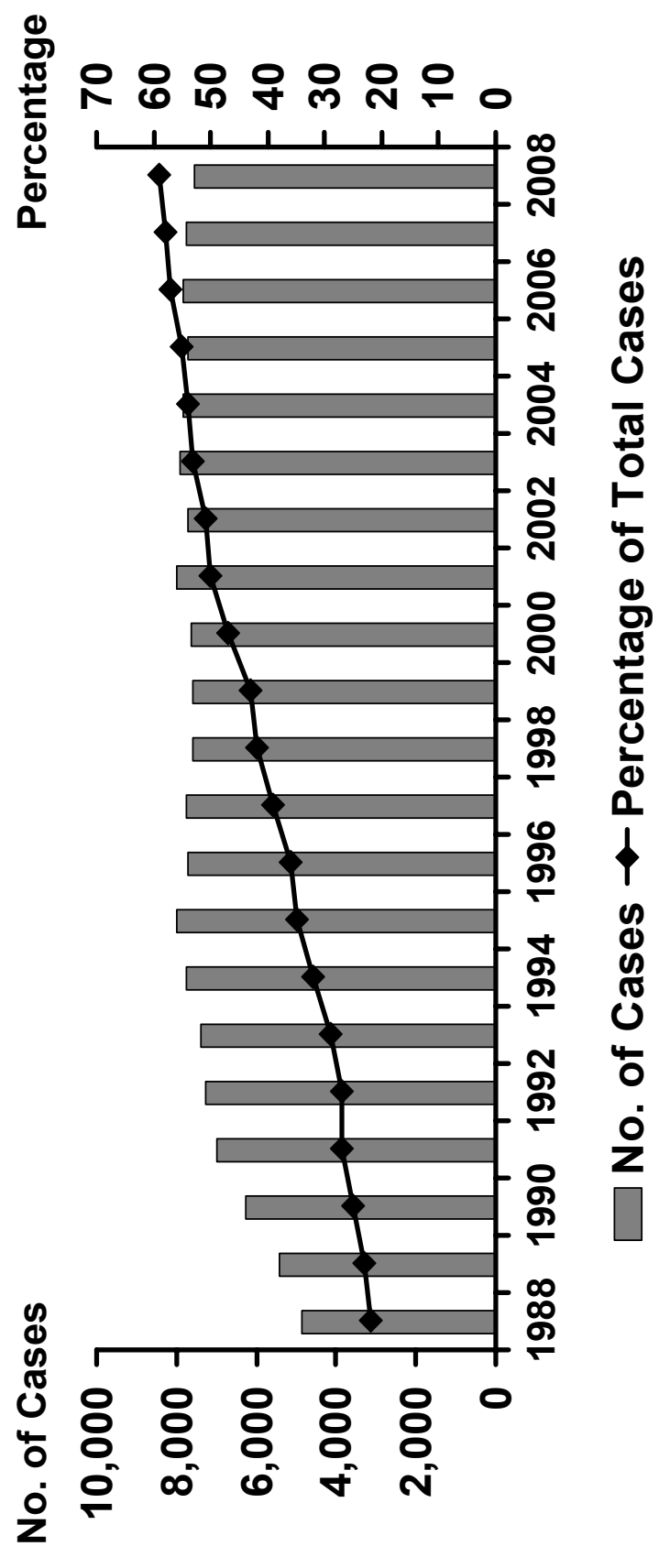
Number of TB Cases in U.S.-born vs. Foreign-born Persons United States, 1993–2008*



*Updated as of May 20, 2009.



Trends in TB Cases in Foreign-born Persons, United States, 1988–2008*

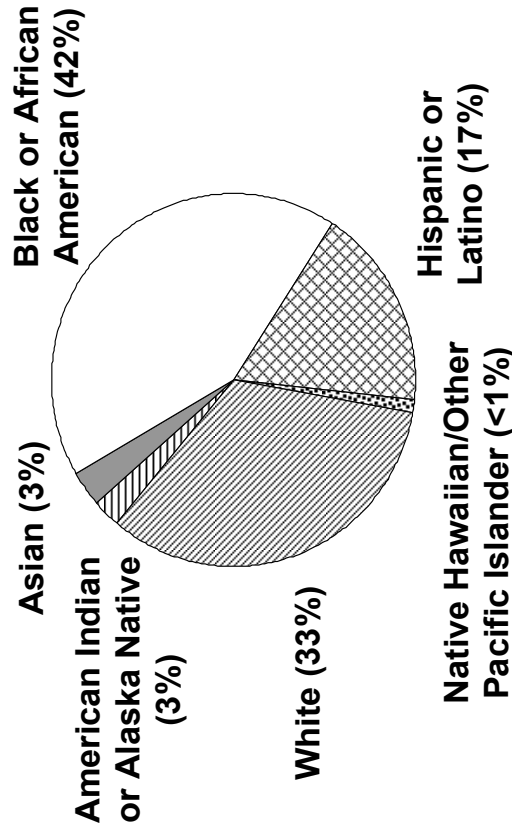


*Updated as of May 20, 2009.

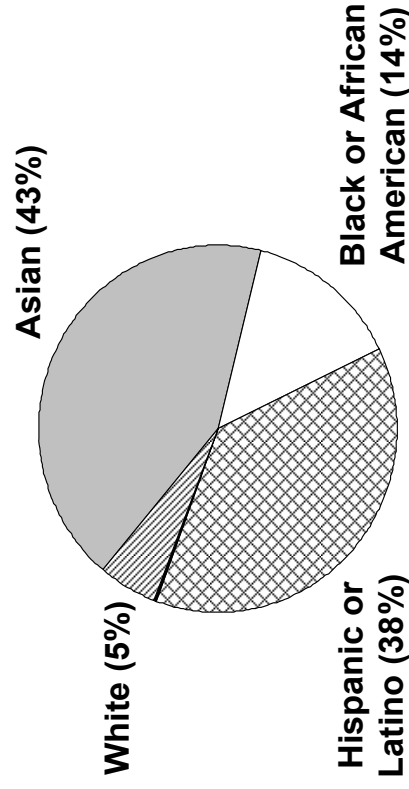


Reported TB Cases by Origin and Race/Ethnicity,* United States, 2008

U.S.-born



Foreign-born**



*All races are non-Hispanic. Persons reporting two or more races accounted for less than 1% of all cases.

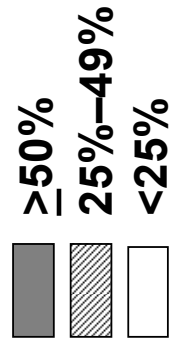
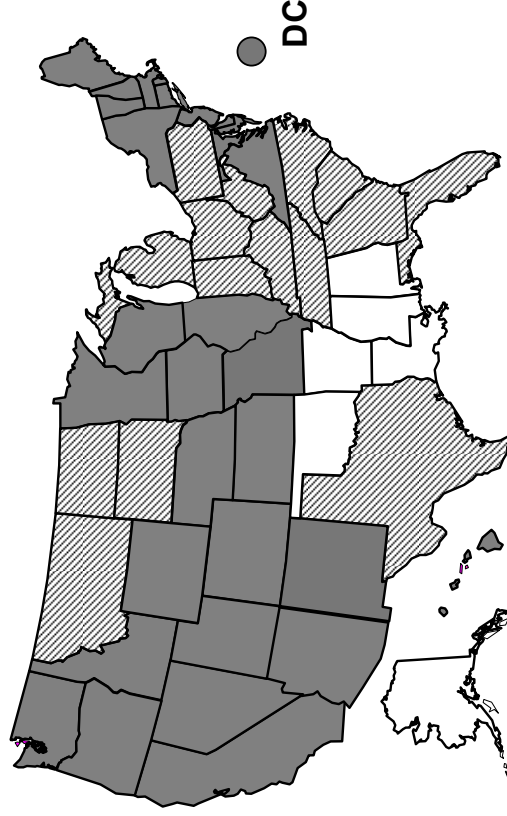
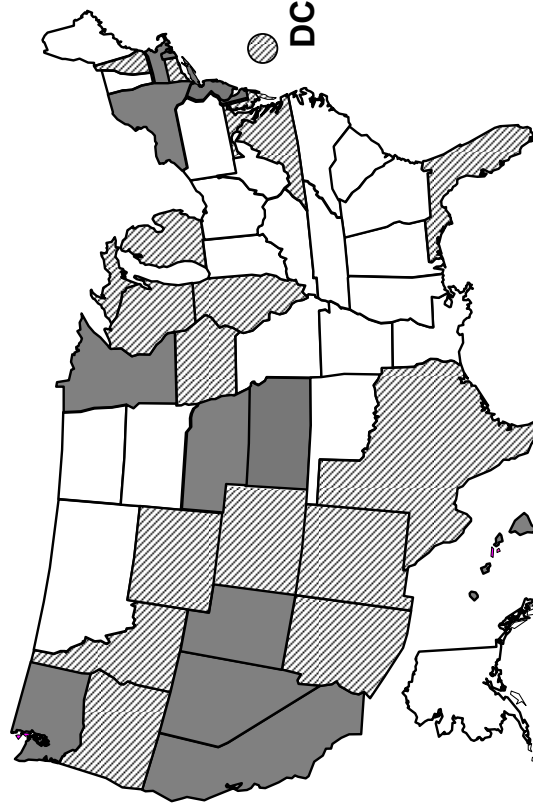
**American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander accounted for less than 1% of foreign-born cases and are not shown.



Percentage of TB Cases Among Foreign-born Persons, United States*

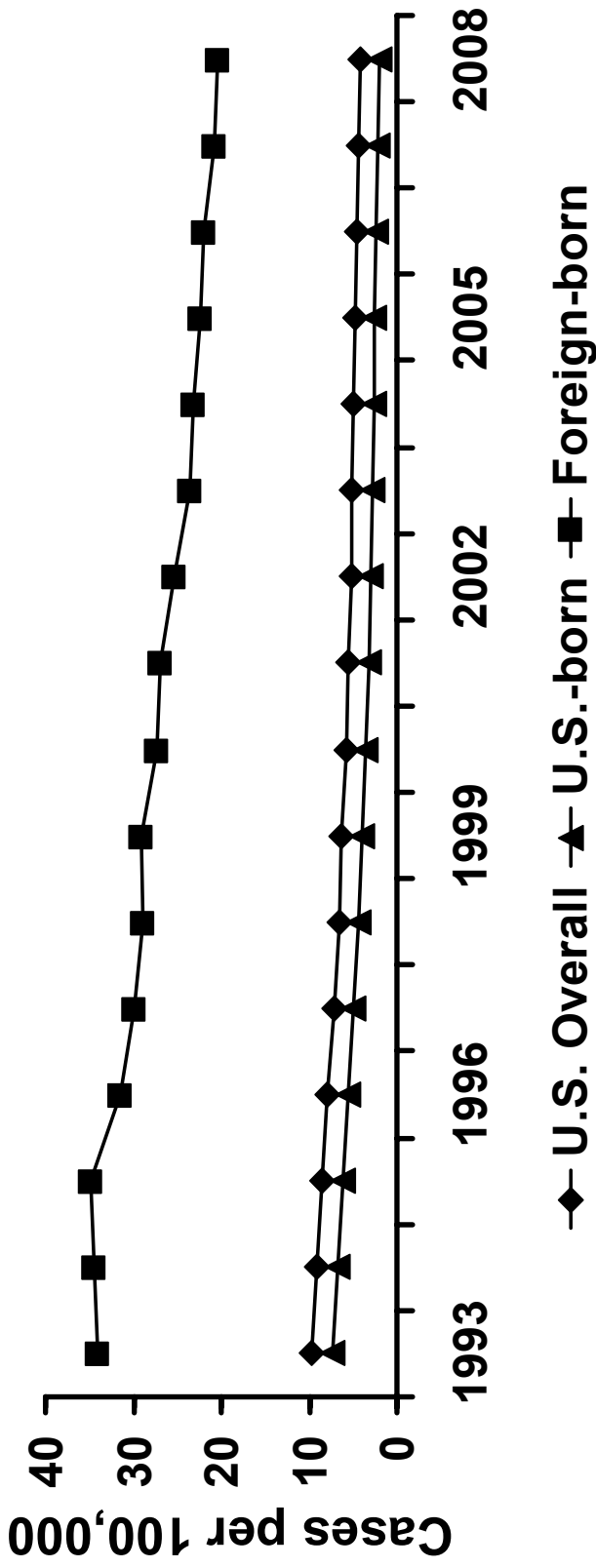
1998

2008



*Updated as of May 20, 2009.

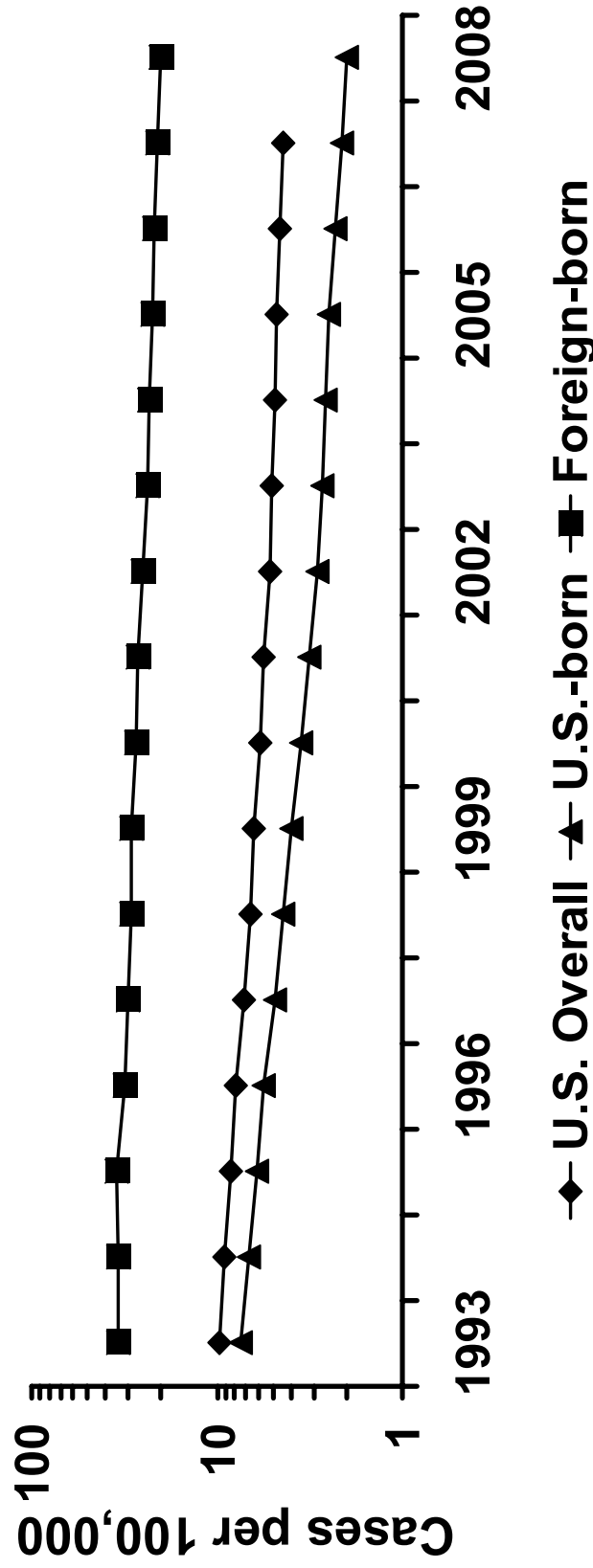
TB Case Rates in U.S.-born vs. Foreign-born Persons United States, 1993–2008*



*Updated as of May 20, 2009.



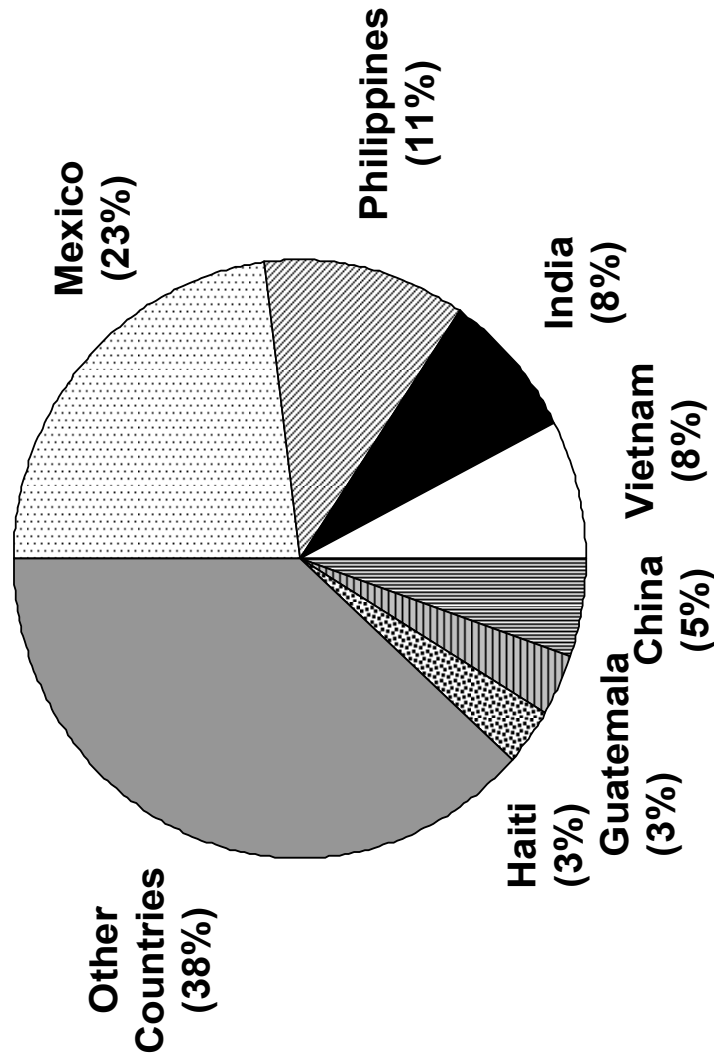
TB Case Rates in U.S.-born vs. Foreign-born Persons United States,* 1993–2008**



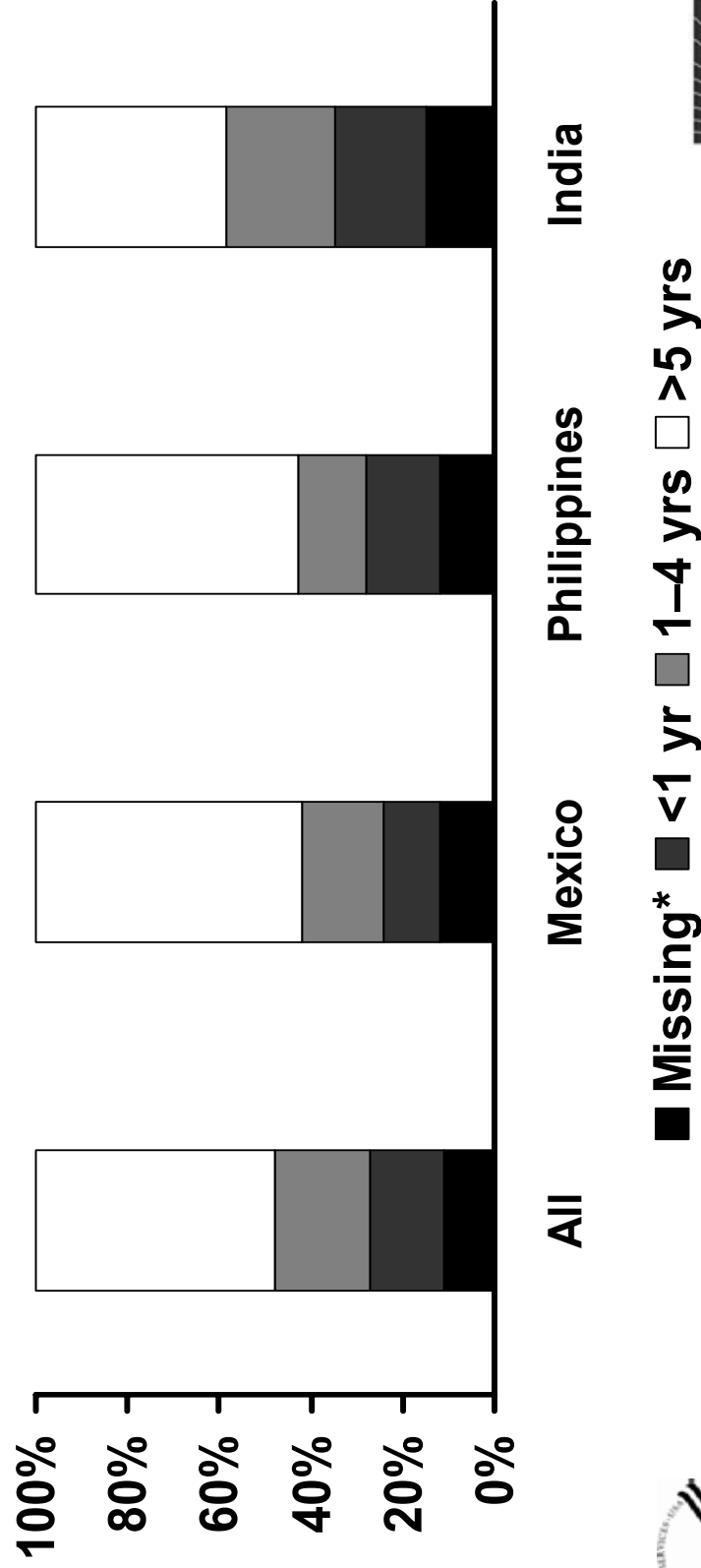
*Includes the same data as slide 15, but rates presented on a logarithmic scale.

**Updated as of May 20, 2009.

Countries of Birth of Foreign-born Persons Reported with TB United States, 2008



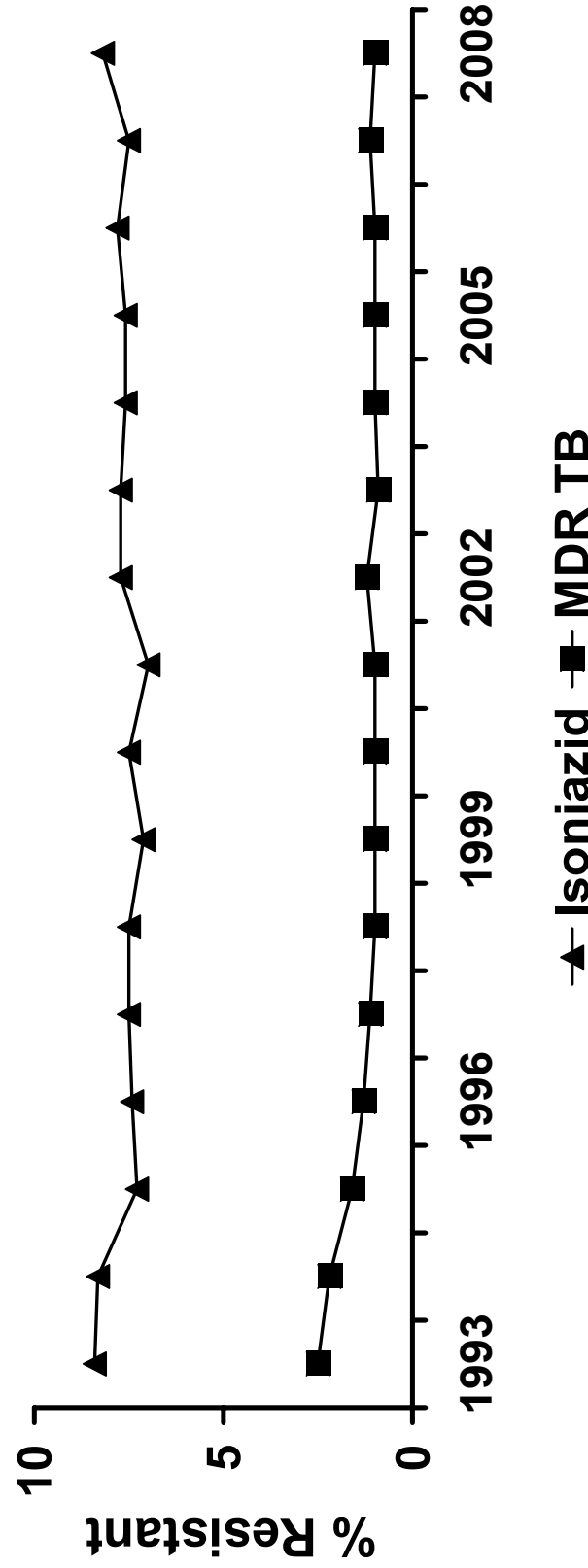
Percent of Foreign-born with TB by Time of Residence in U.S. Prior to Diagnosis, 2008



* Foreign-born TB patients for whom information on length of residence in the U.S. prior to diagnosis is unknown or missing.



Primary Anti-TB Drug Resistance United States, 1993–2008*

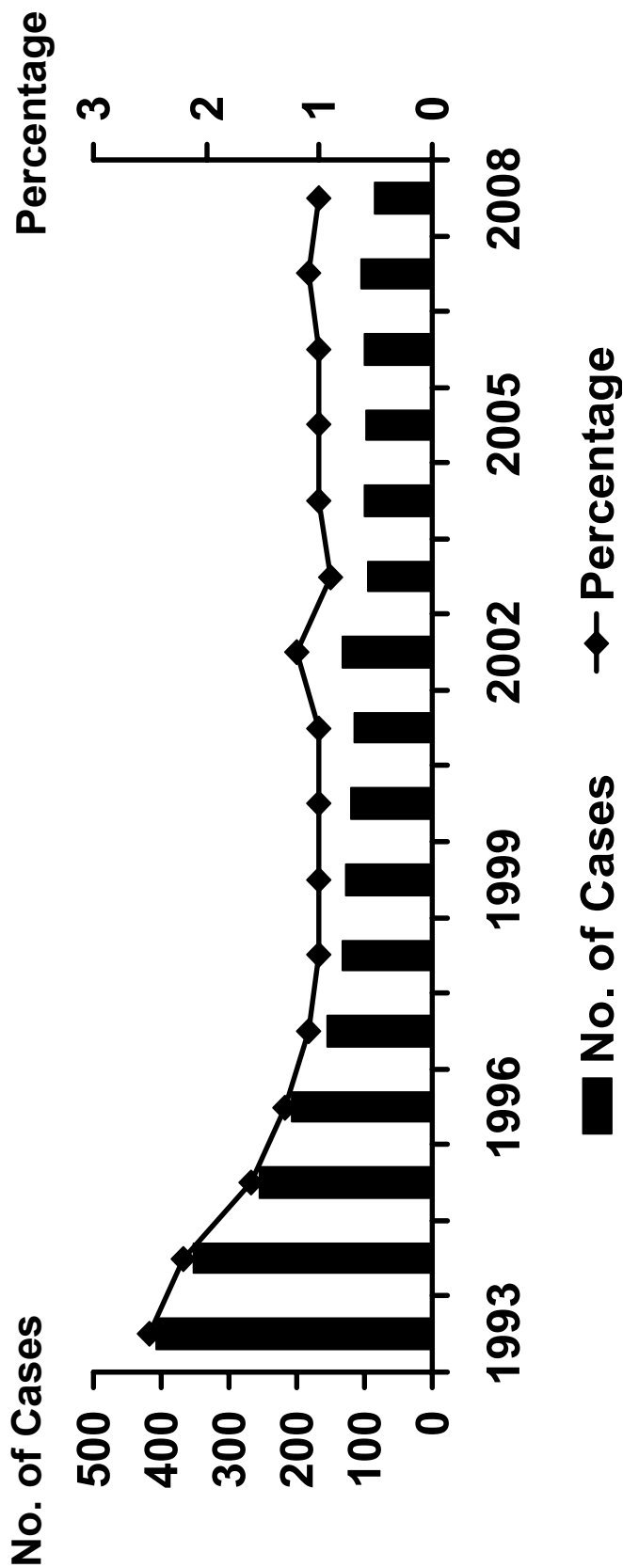


*Updated as of May 20, 2009.

Note: Based on initial isolates from persons with no prior history of TB. Multidrug resistant TB (MDR TB) is defined as resistance to at least isoniazid and rifampin.



Primary MDR TB United States, 1993–2008*

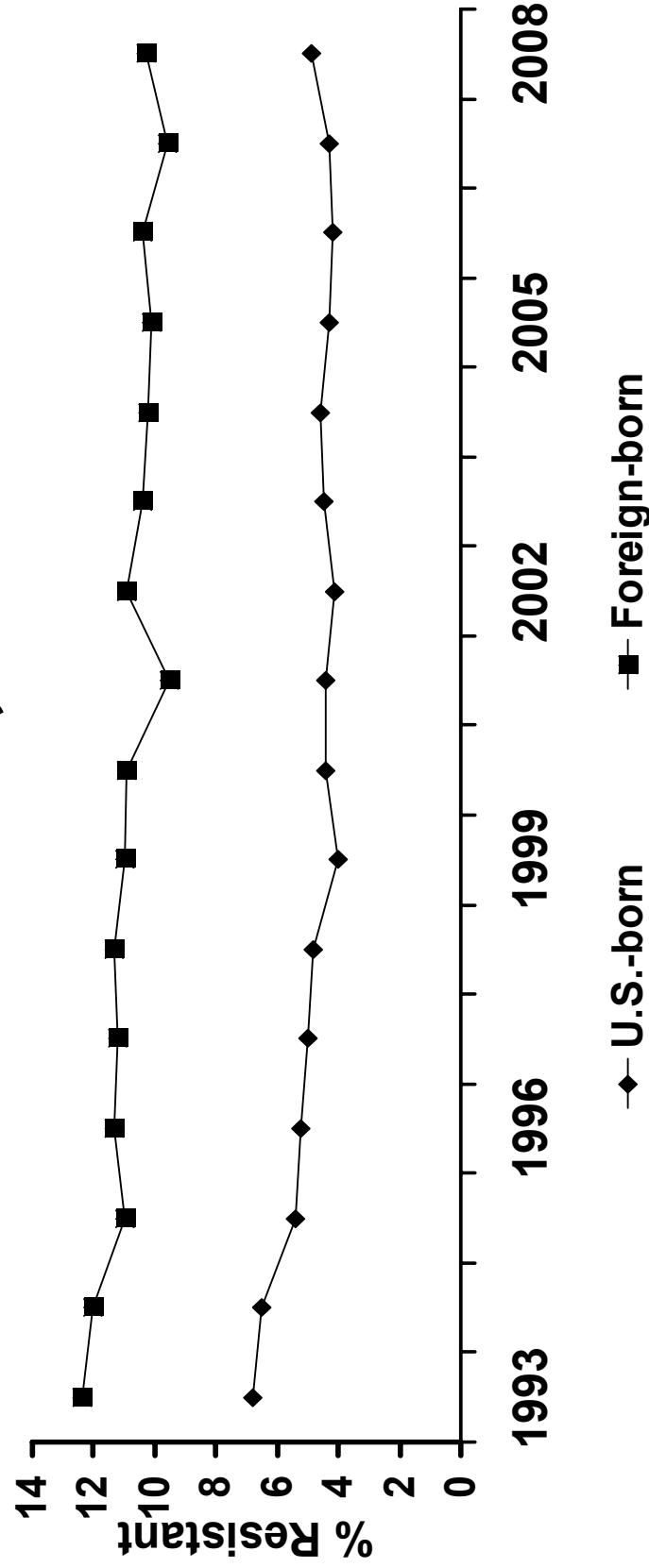


*Updated as of May 20, 2009.

Note: Based on initial isolates from persons with no prior history of TB. MDR TB defined as resistance to at least isoniazid and rifampin.



Primary Isoniazid Resistance in U.S.-born vs. Foreign-born Persons United States, 1993–2008*

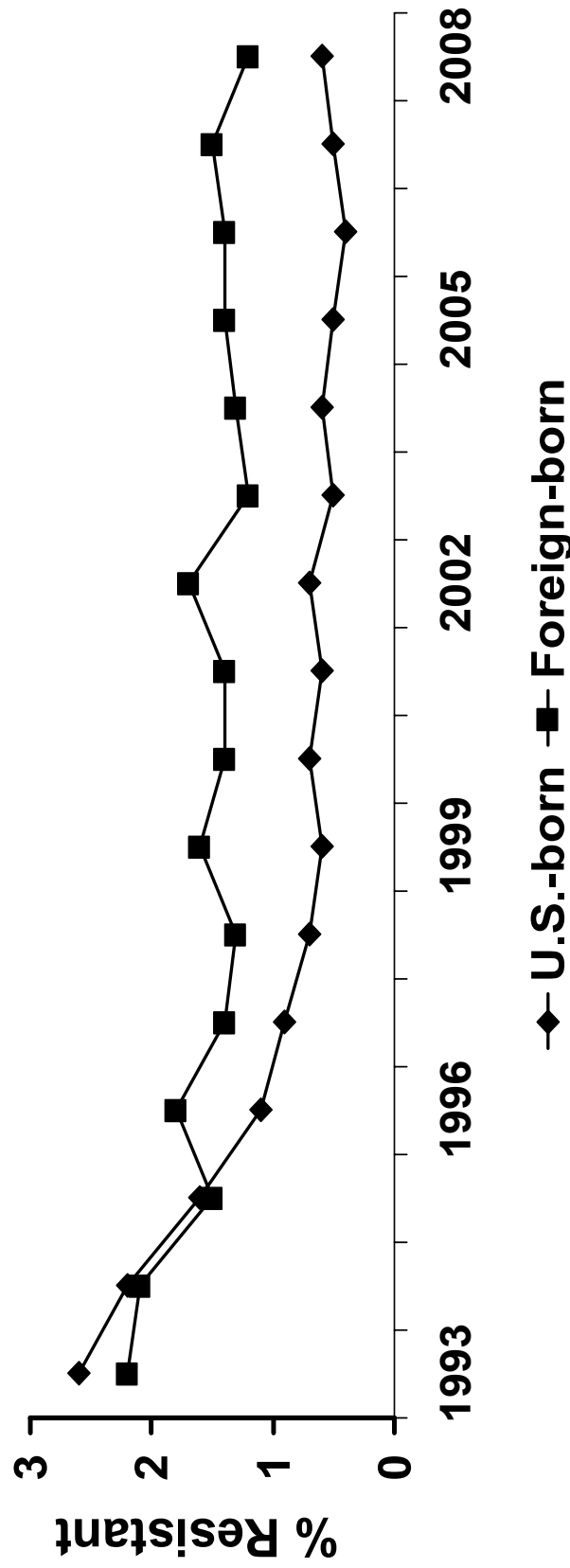


*Updated as of May 20, 2009.

Note: Based on initial isolates from persons with no prior history of TB.



Primary MDR TB in U.S.-born vs. Foreign-born Persons, United States, 1993–2008*

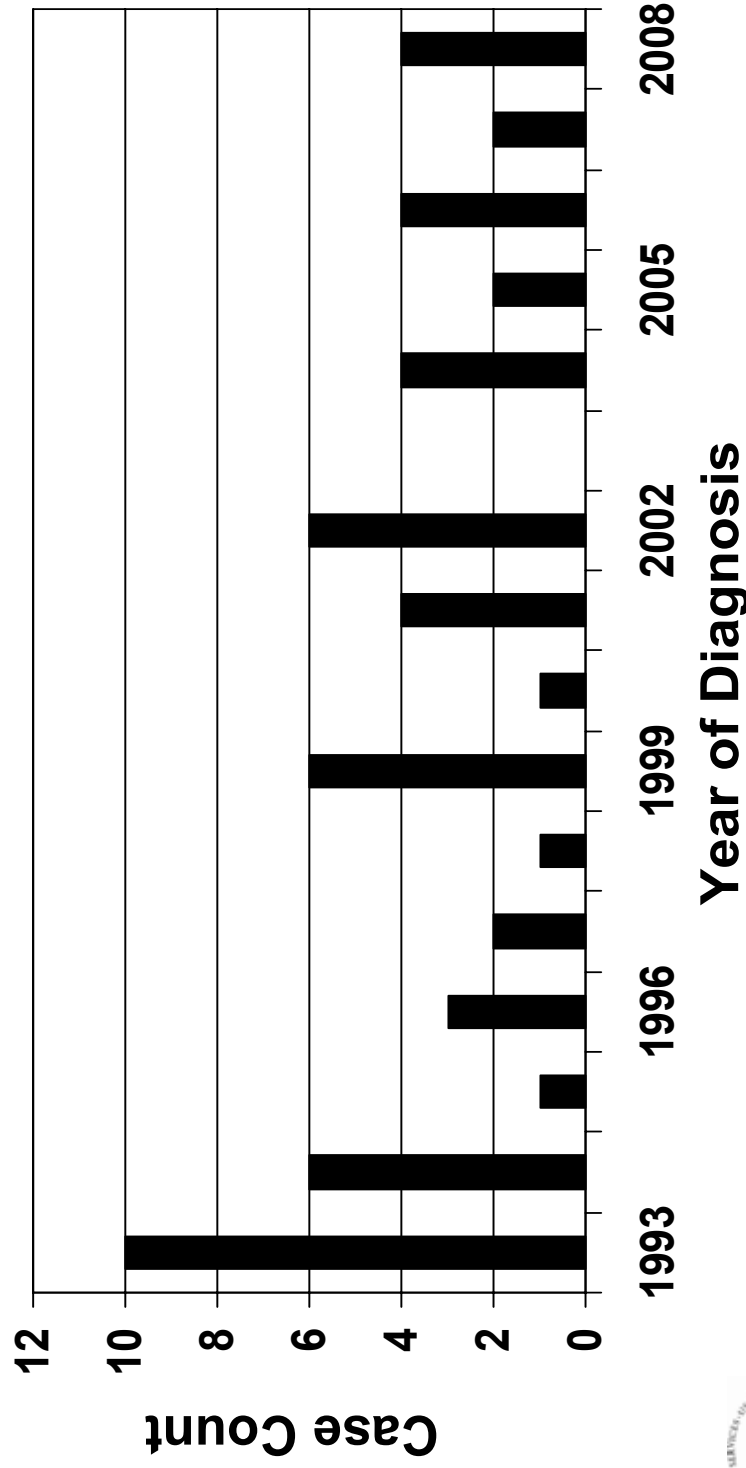


*Updated as of May 20, 2009.

Note: Based on initial isolates from persons with no prior history of TB. MDR TB defined as resistance to at least isoniazid and rifampin.



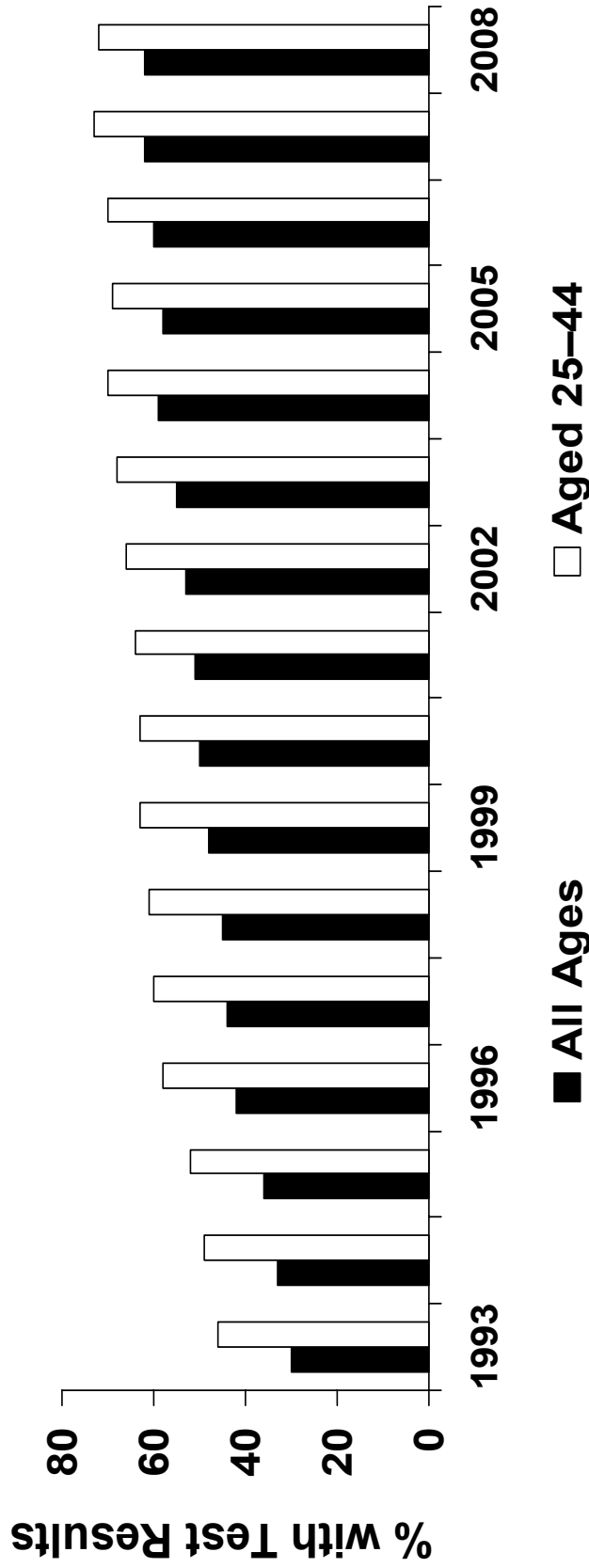
XDR TB Case Count Defined on Initial DST[†] by Year, 1993–2008*



[†]Drug susceptibility test.
 *Reported incident cases as of May 20, 2009.
 Extensively drug-resistant TB (XDR TB) is defined as resistance to isoniazid and rifampin, plus resistance to any fluoroquinolone and at least one of three injectable second-line anti-TB drugs.



Reporting of HIV Test Results in Persons with TB by Age Group United States, 1993–2008*

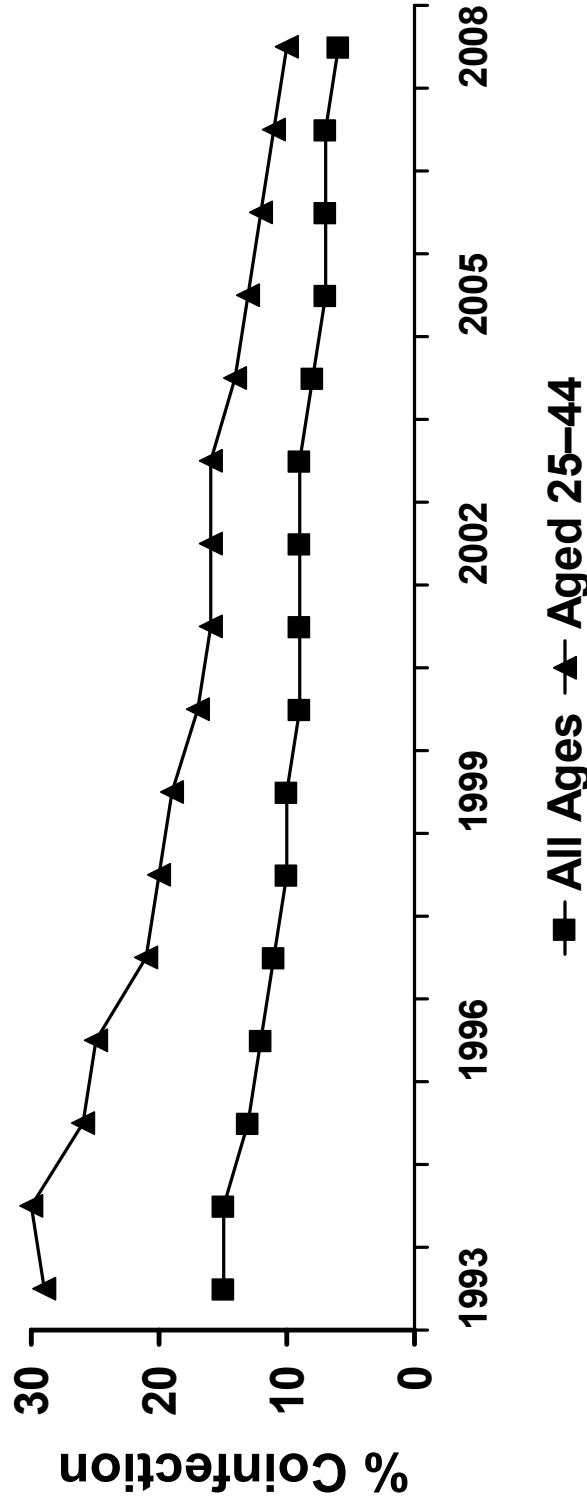


*Updated as of May 20, 2009.

Note: Includes TB patients with positive, negative, or indeterminate HIV test results. Persons from California reported with AIDS only through 2004. (HIV test results are not reported from California)



Estimated HIV Coinfection in Persons Reported with TB, United States, 1993–2008*

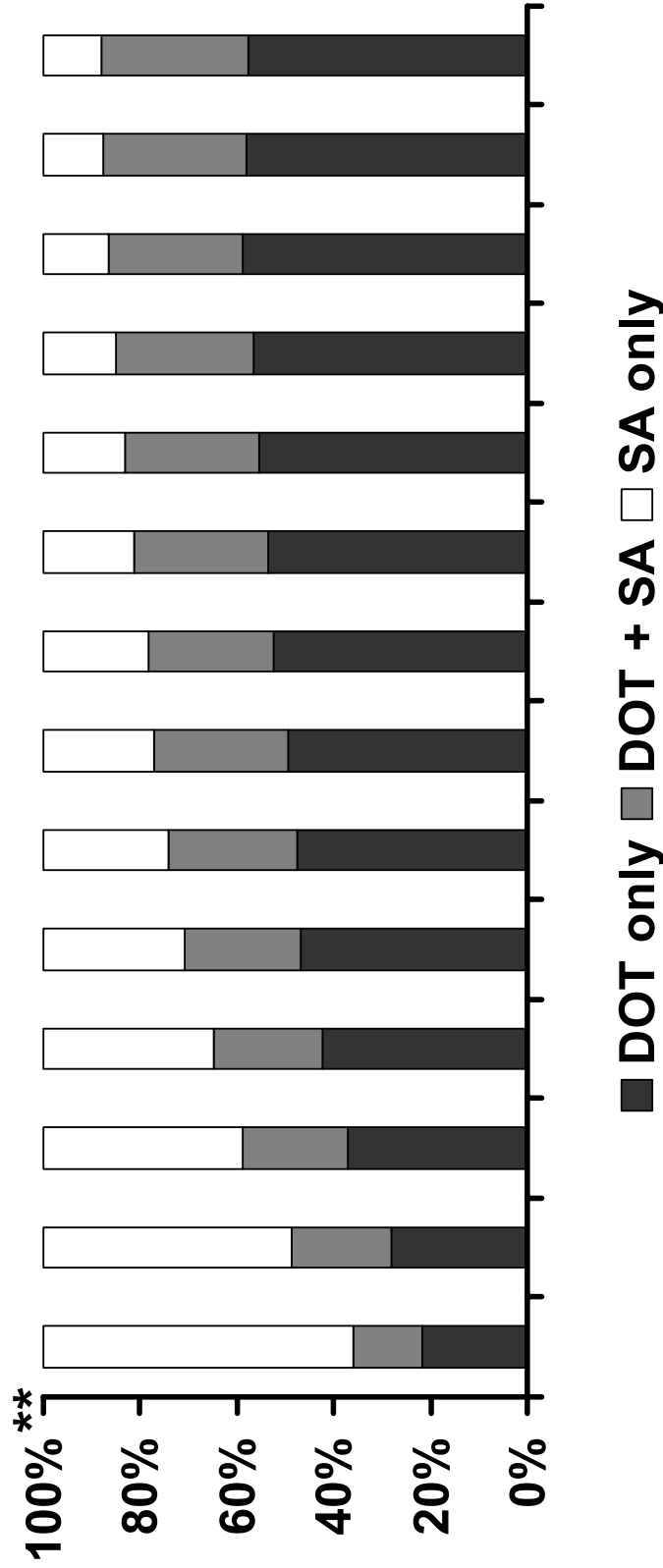


* Updated as of May 20, 2009.

Note: Minimum estimates based on reported HIV-positive status among all TB cases in the age group.



Mode of Treatment Administration in Persons Reported with TB United States, 1993–2006*



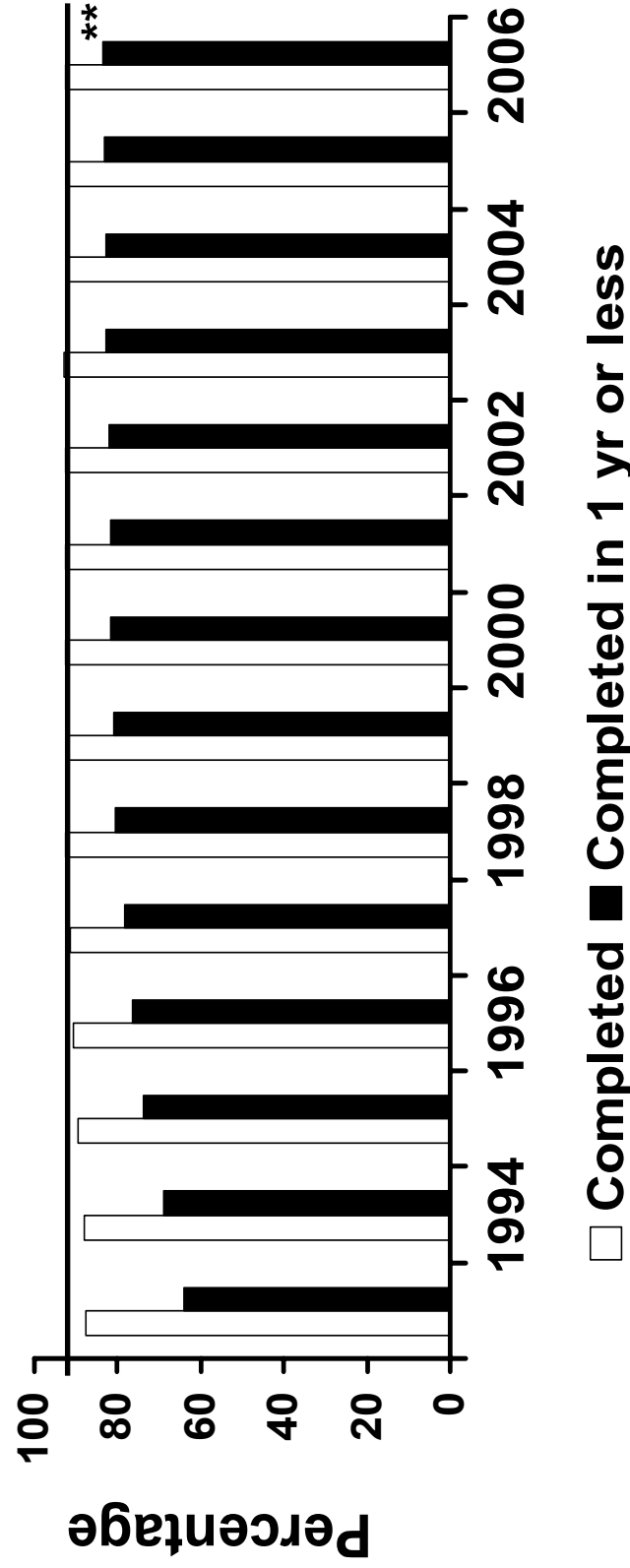
*Updated as of May 20, 2009.

**Percentage of total cases in persons alive at diagnosis, with an initial regimen of one or more drugs prescribed, and excluding cases with missing or unknown mode of treatment administration.

Directly observed therapy (DOT); Self-administered therapy (SA)



Completion of TB Therapy United States, 1993–2006*



*Updated as of May 20, 2008.

**Healthy People 2010 target: 90% completed in 1 yr or less.

Note: Persons with initial isolate resistant to rifampin and children under 15 years old with meningial, bone or joint, or miliary disease excluded.



Tuberculosis in the United States

National Tuberculosis Surveillance System Highlights from 2008

Slide 1 (title slide). Tuberculosis in the United States—National Tuberculosis Surveillance System, Highlights from 2008. This slide set was prepared by the Division of Tuberculosis Elimination, Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (DHHS). It provides trends for the recent past and highlights from data collected through the National Tuberculosis Surveillance System for 2008. Since 1953, through the cooperation of state and local health departments, CDC has collected information on the newly reported cases of tuberculosis (TB) disease in the United States. The data presented here were primarily collected via the expanded TB case report introduced in 1993. Currently, each individual TB case report (Report of Verified Case of Tuberculosis, or RVCT) is submitted electronically to CDC. The data for this slide set are based on updates received by CDC as of May 20, 2009. All case counts and rates for years 1993–2007 have been updated.

Slide 2. Reported TB Cases, United States, 1982–2008. The resurgence of TB in the mid-1980s was marked by several years of increasing case counts until its peak in 1992. Case counts began decreasing again in 1993, and 2008 marked the sixteenth year of decline in the total number of TB cases reported in the United States since the peak of the resurgence. From 1992 until 2002, the total number of TB cases decreased 5%–7% annually. From 2002 to 2003, however, the total number of TB cases decreased by only 1.4%. In 2008, a total of 12,904 cases were reported from the 50 states and the District of Columbia. This represents a decline of 2.9% from 2007 and of approximately 50% from 1992.

Slide 3. TB Morbidity, United States, 2003–2008. This slide provides the total number of reported U.S. TB cases and the associated TB rates for each of the past 6 years. Rate is defined as cases per 100,000 population. The number of TB cases decreased from 15,056 in 2002 to 12,904 in 2008, and the TB rate also decreased from 5.2 in 2002 to 4.2 in 2008.

Slide 4. TB Case Rates, United States, 2008. This map shows TB rates for 2008. Thirty states had a rate of less than or equal to 3.5 TB cases per 100,000, the interim goal for the year 2000 established by the Advisory Council for the Elimination of Tuberculosis. This group of states has remained fairly constant over the last decade; five states (CT, MI, NM, OR, and PA) joined the group in 2000, one state (MO) joined the group in 2001 (also in 1998 for one year only), and one state (KY) joined the group in 2003. In 2008, five more states (AZ, AR, OK, RI and WA) joined the group but one state (MA) left the group. Eleven states and the District of Columbia (DC) reported a rate above the 2008 national average of 4.2 cases per 100,000: AK, CA, FL, GA, HI, LA, MD, NJ, NY, TN and TX. These 11 states and DC accounted for 67% of the national total and experienced substantial overall decreases in cases and rates from 1992 through 2008, with the exception of a slight increase in the number of cases for MA in 2008 compared to 2007.

Slide 5. TB Case Rates by Age Group, United States, 1993–2008. This slide shows the last 16 years' declining trend in TB rates by age group. The largest declines occurred in persons 65 years and older (from 17.7 per 100,000 in 1993 to 6.4 in 2008), in adults aged 45 to 64 years (from 12.4 to 5.0), in adults aged 25 to 44 years (from 11.5 to 5.1), and in children under 15 years of age (from 2.9 to 1.3), each group having decreased more than 50%. The rate declined by 32% in those 15 to 24 years of age (from 5.0 to 3.4).

Slide 6. Reported TB Cases by Age Group, United States, 2008. This pie chart shows the age distribution of persons reported with TB in 2008. Six percent were children under 15 years of age, 11% were age 15 to 24, 33% were age 25 to 44, 30% were age 45 to 64, and 19% were at least 65 years old.

Slide 7. TB Case Rates by Age Group and Sex, United States, 2008. This slide graphs the TB rates in 2008 by age group and sex. It shows that rates tended to increase with age, ranging from a low of less than 2 per 100,000 in children to a high of 9 per 100,000 in men 65 years and older. The rates in men 45 years and older were approximately twice those in same-age women.

Slide 8. TB Case Rates by Race/Ethnicity, United States, 1993–2008. This slide shows the declining trend in TB rates by race/ethnicity during the last 16 years. Asians and Pacific Islanders had the highest TB rates, which declined from 44.1 per 100,000 in 1993 to 25.3 in 2008, and had the smallest percentage decline over the time period (43%). Rates declined by at least 57% over the time period in the other racial/ethnic groups: among non-Hispanic blacks or African-Americans, from 28.5 in 1993 to 8.8 in 2008 (69%); among Hispanics, from 19.9 to 8.1 (59%); among American Indians and Alaska Natives, from 13.9 to 6.0 (57%); and among non-Hispanic whites, from 3.6 to 1.1 (69%). Since 2003, the Asian and Pacific Islander race category has included persons who reported race as either 1) Asian only or 2) Native Hawaiian or Other Pacific Islander only. Although these categories were reported separately beginning in 2003, they were merged for this slide to allow for continuity in reporting trends.

Several important factors likely contribute to the disproportionate burden of TB in minorities. In persons who were born in countries where TB is common, TB disease may result from infection acquired in the country of origin. Unequal distribution of TB risk factors, such as HIV infection, may also contribute to increased exposure to TB or to an increased risk of developing TB once infected with *M. tuberculosis*.

Slide 9. TB Case Rates by Age Group and Race/Ethnicity, United States, 2008. This slide presents TB rates in 2008 by age group and race/ethnicity. Risk increased with age across racial and ethnic groups, and rates were consistently higher in minority racial and ethnic groups than in non-Hispanic whites with the exception of American Indian or Alaskan Native in the 15-24 year-old age group. Rates were the highest in Asians and Native Hawaiians and Other Pacific Islanders, particularly in adult age groups. The impact of foreign birth is a consideration in interpreting rate variations by race/ethnicity. For example, 95% of cases in the Asian group occurred in foreign-born persons, compared with 76% of cases in Hispanics and 32% of cases in non-Hispanic blacks or African-Americans. Persons reporting two or more races totaled less than 1% of all cases.

Slide 10. Reported TB Cases by Race/Ethnicity, United States, 2008. In 2008, 83% of all reported TB cases occurred in racial and ethnic minorities (29% in Hispanics, 26% in Asians, 25% in non-Hispanic blacks or African-Americans, 1% in American Indians or Alaska Natives, and <1% in Native Hawaiians or Other Pacific Islanders), whereas 17% of cases occurred in non-Hispanic whites. Persons reporting two or more races totaled less than 1% of all cases. This is the fifth year that Hispanics have constituted the single largest percentage of TB cases among all racial/ethnic groups and the first year that Asians have surpassed non-Hispanic blacks or African Americans as the second largest percentage of TB cases among all racial/ethnic groups.

Slide 11. Number of TB Cases in U.S.-born vs. Foreign-born Persons, United States, 1993–2008. This graph plots the number of U.S.-born vs. foreign-born persons reported with TB each year, from 1993 through 2008. It illustrates the increase in the percentage of cases occurring in foreign-born persons during this period, from 29% in 1993 to 58% in 2008. Overall, the number of cases in foreign-born persons remained virtually level, with approximately 7,000–8,000 cases each year, whereas the number in U.S.-born persons decreased from more than 17,000 in 1993 to less than 5,300 in 2008.

Slide 12. Trends in TB Cases in Foreign-born Persons, United States, 1988–2008. This slide shows trends in TB cases in foreign-born persons in the United States from 1988 through 2007. The number of TB cases in foreign-born persons increased from nearly 5,000 in 1988 to 7,000–8,000 each year since 1991. The percentage of TB cases accounted for by foreign-born persons increased from 22% in 1988 to 59% in 2008.

Slide 13. Reported TB Cases by Origin and Race/Ethnicity, United States, 2008. Among U.S.-born persons with TB in 2008, 42% were non-Hispanic black or African-American, 33% were non-Hispanic white, 17% were Hispanic or Latino, 3% were Asian, 3% were American Indian or Alaska Native, and 1% were Native Hawaiian or Other Pacific Islander. Among the foreign-born, 43% were Asian, 38% were Hispanic or Latino, 14% were non-Hispanic black or African-American, and 5% were non-Hispanic white. Cases among American Indians or Alaska Natives and among Native Hawaiians or Other Pacific Islanders constituted less

than 1%, respectively, of the cases among the foreign-born and are not shown. Persons reporting two or more races totaled less than 1% of all cases.

Slide 14. Percentage of TB Cases Among Foreign-born Persons, United States, 1996 and 2008. The percentage range of the total number of TB cases that occurred in foreign-born persons in each state is highlighted for 1998 and 2008 in these side-by-side maps. The number of states with at least 50% of cases in the foreign-born increased from 12 states in 1998 to 29 states and the District of Columbia in 2008. The number of states with at least 70% of cases in the foreign-born increased from two (HI and MN) in 1998 to fourteen (CA, CO, CT, MA, MD, ME, MN, NH, NJ, NY, OR, RI, VA and WA) in 2008 (not shown on slide).

Slide 15. TB Case Rates in U.S.-born vs. Foreign-born Persons, United States, 1993–2008. TB rates in foreign-born persons remain higher than those in the U.S.-born population. From 1993 through 2008, the rates in U.S.-born persons decreased from 7.4 per 100,000 to 2.0, whereas the rates in foreign-born persons decreased from 34.0 per 100,000 to 20.3.

Slide 16. TB Case Rates in U.S.-born vs. Foreign-born Persons, United States, 1993–2008. This is the same as Slide 15, but the rates are presented on a logarithmic scale to better illustrate the trend in TB rates among the U.S.-born and foreign-born. The lines show a greater rate of decline among the U.S.-born compared with the foreign-born during this period.

Slide 17. Countries of Birth of Foreign-born Persons Reported with TB, United States, 2008. This slide shows the overall distribution of the countries of birth of foreign-born persons reported with TB in 2008, with the top seven highlighted. The list of countries has remained relatively constant since 1986, when information on country of birth was first reported by all areas submitting reports to CDC. The seven top countries accounted for 61% of the total, with Mexico accounting for 23%; the Philippines, 11%; India, 8%; Vietnam, 8%; China, 5%; Guatemala, 3%; and Haiti, 3%. Persons from more than 135 other countries each accounted for 2% or less of the total, but altogether accounted for 38% of foreign-born persons reported with TB.

Slide 18. Percent of Foreign-born with TB by Time of Residence in U.S. Prior to Diagnosis, 2008. The length of U.S. residence among foreign-born persons prior to their TB diagnosis in 2008 is shown in these stacked bars. Overall, 16% had been in the United States for less than 1 year, 21% between 1 and 4 years, and 52% for at least 5 years. The distribution is also shown for the top three countries of birth: Mexico, the Philippines, and India. Among persons born in Mexico, 13% had been in the United States for less than 1 year, 18% between 1 and 4 years, and 58% for at least 5 years. Among persons born in the Philippines, 16% had been in the United States for less than 1 year, 15% between 1 and 4 years, and 57% for at least 5 years. Among persons born in India, 20% had been in the United States for less than 1 year, 24% between 1 and 4 years, and 42% for at least 5 years.

Slide 19. Primary Anti-TB Drug Resistance, United States, 1993–2008. Primary drug resistance is shown for the past 16 years. The graph starts in 1993, the year in which the individual TB case reports submitted to the national surveillance system began collecting information on initial susceptibility test results for patients with culture-positive TB. Data were available for more than 85% of culture-positive cases for each year. Primary resistance was calculated by using data from persons with no reported prior TB episode. Resistance to at least isoniazid remained between 7.0% and 8.4%. However, resistance to at least isoniazid and rifampin, known as multidrug-resistant TB (MDR TB), decreased from 2.4% in 1993 to 1.1% in 1997, and remained at approximately 1.1 % up to and including 2008.

Slide 20. Primary MDR TB, United States, 1993–2008. This graph focuses on trends in primary MDR TB (based on initial isolates from persons with no prior history of TB) in the United States from 1993 through 2008. The number of primary MDR TB cases, represented by bars, steadily declined from 407 in 1993 to 115 in 2001. Since then the total number of primary MDR TB cases has fluctuated from 86 to 132 cases, with 86 cases reported for 2008. Primary MDR TB, shown by the line, decreased from 2.5% in 1993 to approximately 1.1% in 1997, and remained approximately at 1.1% up to and including 2008.

Slide 21. Primary Isoniazid Resistance in U.S.-born vs. Foreign-born Persons, United States, 1993–2008.

This graph shows primary isoniazid resistance in U.S.-born vs. foreign-born persons. Based on initial isolates from persons with no prior history of TB, the percentage of isoniazid resistance was approximately two times higher among foreign-born persons than among U.S.-born persons. In foreign-born persons, the percentage declined from 12.4% in 1993 to 10.3% in 2008. In U.S.-born persons, the percentage decreased from 6.8% in 1993 to 4.9% in 2008.

Slide 22. Primary MDR TB in U.S.-born vs. Foreign-born Persons, United States, 1993–2008. This graph highlights primary MDR TB in U.S.-born versus foreign-born persons. The percentage with primary MDR TB has declined among both groups, although the decline in the U.S.-born has been greater. As a result, the proportion of primary MDR TB cases reported in foreign-born persons increased from approximately 25% in 1993 to 77% in 2008 (not shown on slide). Among the U.S.-born, the percentage with primary MDR TB remained between 0.4% and 0.7% from 1998 through 2008 and was 0.6% in 2008. The percentage among foreign-born persons has fluctuated year by year, while averaging approximately 1.4% from 1998 through 2008.

Slide 23. Extensively Drug Resistant (XDR) TB, as Defined on Initial Drug Susceptibility Testing (DST), United States, 1993–2008. This graph shows the annual number of counted XDR TB cases as defined on initial DST from 1993–2008, reported as of May 20, 2009. Four XDR TB cases were reported in 2008. The most reported in a single year was 10 in 1993, while there were no cases reported in 2003. There is no apparent trend in the number of cases over time.

Slide 24. Reporting of HIV Test Results in Persons with TB by Age Group, United States, 1993–2008.

This slide shows the completeness of reporting of HIV test results in persons with TB by age group from 1993 through 2008. The percentage of TB patients for whom test results were reported increased from 30% among all ages in 1993 to 62% in 2008. Among adults aged 25–44 years, the percentage increased from 46% to 72% in 2008. The numerator includes TB patients with positive, negative, or indeterminate HIV test results and persons from California reported with AIDS (HIV test results are not reported to CDC from California or Vermont).

Slide 25. Estimated HIV Coinfection in Persons Reported with TB, United States, 1993–2008. This slide provides minimum estimates of HIV coinfection among persons reported with TB from 1993 through 2008. Since the addition of the request for HIV status to the individual TB case report in 1993, incomplete reporting has provided a challenge to calculating reliable estimates. Results from the cross-matching of TB and AIDS registries have been used to supplement reported HIV test results. For all ages, the estimated percentage of HIV coinfection in persons reported with TB decreased from 15% to 6% overall and from 29% to 10% in persons aged 25 to 44 years during this period.

Slide 26. Mode of Treatment Administration in Persons Reported with TB, United States, 1993–2006. In 1993, the reporting areas began providing information about mode of treatment administration on the individual TB case report form. Treatment administered as only directly observed therapy (DOT) increased from 21% in 1993 to 57% in 2006, the latest year with available data. There was also an increase in the proportion of patients who received at least some portion of their treatment as DOT (based on combining the percentage of patients who received only DOT and the percentage for whom some portion was self-administered). In 2006, 87% of patients received at least some portion of their treatment as DOT.

Slide 27. Completion of TB Therapy, United States, 1993–2006. The reporting areas began providing information on completion of therapy in 1993 through the individual TB case report form. The calculations exclude patients with an initial isolate resistant to rifampin as well as children with meningeal, bone or joint, or miliary disease. Overall completion of therapy has remained at approximately 92% from 1998 through 2006. Completion in 1 year or less increased from 64% in 1993 to 84% in 2006, the latest year with available data. The current DHHS Healthy People 2010 objective is completion of therapy in 1 year or less in 90% of patients. CDC is working with state and local health departments to determine and evaluate reasons for apparently delayed completion of therapy, which may vary by jurisdiction..

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Appendices

Appendix A

Tuberculosis Case Definition for Public Health Surveillance¹

Tuberculosis (Revised 9/96)

Clinical description

A chronic bacterial infection caused by *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but other organs may be involved.

Clinical case definition

A case that meets all of the following criteria:

- A positive tuberculin skin test result; and
- Other signs and symptoms compatible with tuberculosis, such as an abnormal, unstable (i.e., worsening or improving) chest radiograph, or clinical evidence of current disease; and
- Treatment with two or more antituberculosis medications; and
- A completed diagnostic evaluation.

Laboratory criteria for diagnosis

- Isolation of *M. tuberculosis* from a clinical specimen,^{*} or
- Demonstration of *M. tuberculosis* from a clinical specimen by nucleic acid amplification test,[†] or
- Demonstration of acid-fast bacilli in a clinical specimen when a culture has not been or cannot be obtained.

Case classification

Confirmed: a case that meets the clinical case definition or is laboratory confirmed.

Comment

Only one case should be counted in a person within any consecutive 12-month period. However, a case in a patient who had previously had verified disease should be reported again if more than 12 months have elapsed since the patient was discharged from treatment. A case should also be re-reported again if the patient was lost to supervision for >12 months and disease can be verified again. Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in tuberculosis morbidity statistics unless there is concurrent tuberculosis.

¹ Case definition applicable to this report: CDC. Case definitions for infectious conditions under public health surveillance. *Morbidity and Mortality Weekly Report* 1997;46(No. RR-10):40-41. Case definition (revised 2009): CDC. Report of Verified Case of Tuberculosis (RVCT) Instruction Manual. Atlanta, GA: U.S. Department of Health and Human Services, CDC, June 2009.

^{*}Use of rapid identification techniques for *M. tuberculosis* (e.g., DNA probes and mycolic acid high-pressure liquid chromatography performed on a culture from a clinical specimen) are acceptable under this criterion.

[†]Nucleic acid amplification (NAA) tests must be accompanied by culture for mycobacteria species. However, for surveillance purposes, CDC will accept results obtained from NAA tests approved by the Food and Drug Administration (FDA) and used according to the approved product labeling on the package insert.

Appendix B

Recommendations for Counting Reported Tuberculosis Cases (Revised July 1997)

Since publication of the “Recommendations for Counting Reported Tuberculosis Cases”[†] in January 1977, numerous changes have occurred and many issues have been raised within the field of tuberculosis (TB) surveillance. This current version[†] updates and supersedes the previous version; it clarifies the parameters for counting TB cases among (a) immigrants, resident aliens, and border crossers, (b) military personnel stationed in the United States and abroad, and (c) persons diagnosed within the Indian Health Service and correctional facilities.

A distinction should be made between **reporting** TB cases to a health department and **counting** TB cases for determining incidence of disease. Throughout each year, TB cases and suspected cases are reported to public health authorities by sources such as clinics, hospitals, laboratories, and health care providers. From these reports, the state or local TB control officer must determine which cases meet the current surveillance definition for TB disease. These verified TB cases are then counted and reported to the Centers for Disease Control and Prevention (CDC).

I. Reporting TB Cases. CDC recommends that health care providers and laboratories be required to report all TB cases or suspected cases to state and local health departments based on the current “Case Definition for Public Health Surveillance.”² This notification is essential in order for TB programs to

- Ensure case supervision,
- Ensure completion of appropriate therapy,
- Ensure completion of timely contact investigations,
- Evaluate program effectiveness, and
- Assess trends and characteristics of TB morbidity.

II. TB Surveillance. For purposes of surveillance, a case of TB is defined on the basis of laboratory and/or clinical evidence of active disease due to *M. tuberculosis* complex.*

*Because most laboratories use tests that do not routinely distinguish *Mycobacterium tuberculosis* from very closely related species, these laboratories report culture results as being positive or negative for “*Mycobacterium tuberculosis* complex.” Although in almost all cases of human disease, isolates in the *M. tuberculosis* complex are, in fact, *M. tuberculosis*, other species are possible. For example, one study in San Diego found that 6% of human tuberculosis was caused by *Mycobacterium bovis*; cultures from these cases would be reported by most laboratories as being positive for *M. tuberculosis* complex. Other species in the *Mycobacterium tuberculosis* complex include *M. africanum*, *M. microti*, *M. canettii*, *M. caprae*, and *M. pinnipedii*. Although *M. microti*, *M. canettii*, *M. caprae*, and *M. pinnipedii* are newly described species, their inclusion in *M. tuberculosis* complex should not impact public health laboratories or programs because only a few laboratories identify to the species level. These seven species are almost identical in DNA homology studies. In terms of their ability to cause clinical disease and be transmissible from person to person, *M. bovis*, *M. africanum*, *M. microti*, and *M. canettii* behave like *M. tuberculosis*; therefore, disease caused by any of the organisms should be reported as TB, using the Report of Verified Case of Tuberculosis (RVCT). The only exception is the BCG strain of *M. bovis*, which may be isolated from persons who have received the vaccine for protection against TB or as cancer immunotherapy; disease caused by the BCG strain of *M. bovis* should not be reported as TB because the transmission is iatrogenic (treatment-induced), rather than person-to-person or communicable.

[†]Recommendations applicable to this report: *Recommendations for Counting Reported TB Cases*. Atlanta; CDC, July 1997. Recommendations (revised 2009): CDC. Report of Verified Case of Tuberculosis (RVCT) Instruction Manual. Atlanta, GA: U.S. Department of Health and Human Services, CDC, June 2009:

a. Laboratory Case Definition

- Isolation of *M. tuberculosis* complex from a clinical specimen. The use of rapid identification techniques for *M. tuberculosis* performed on a culture from a clinical specimen, such as DNA probes and high-pressure liquid chromatography (HPLC), is acceptable under this criterion.

OR

- Demonstration of *M. tuberculosis* from a clinical specimen by nucleic acid amplification (NAA) test. NAA tests must be accompanied by cultures of mycobacterial species. However, for surveillance purposes, CDC will accept results obtained from NAA tests that are approved by the Food and Drug Administration (FDA).

OR

- Demonstration of acid-fast bacilli (AFB) in a clinical specimen when a culture has not been or cannot be obtained; historically this criterion has been most commonly used to diagnose TB in the postmortem setting.

b. Clinical Case Definition. In the absence of laboratory confirmation of *M. tuberculosis* complex after a diagnostic process has been completed, persons must have **all** of the following criteria for clinical TB:

- Evidence of TB infection based on a positive tuberculin skin test result

AND

- One of the following:
 - (1) Signs and symptoms compatible with current TB disease, such as an abnormal, unstable (worsening or improving) chest radiograph, or
 - (2) Clinical evidence of current disease (e.g., fever, night sweats, cough, weight loss, hemoptysis)

AND

- Current treatment with two or more anti-TB medications

NOTE: The case definition described herein was developed for use in this document and is not intended to replace the case definition for TB as stated in the current “Case Definitions for Infectious Conditions Under Public Health Surveillance.”

In addition, the software for TB surveillance developed by CDC includes a calculated variable called “Ver-crit,” for which one of the values is “Provider Diagnosis.” “Provider Diagnosis” is selected when the user chooses to override a “Suspect” default value in the case verification screen as “Verified by Provider Diagnosis.” Thus, “Provider Diagnosis” is not a component of the case definition for TB in the current “Case Definitions for Infectious Conditions Under Public Health Surveillance” publication. CDC’s national morbidity reports have traditionally included all cases that are considered verified by the reporting areas, without a requirement that cases meet the published case definition.

III. Counting TB Cases. Cases that meet the current CDC surveillance case definition for verified TB are counted by 52 reporting areas with count authority (50 states, District of Columbia, and New York City) to determine annual incidence for the United States. The remaining 7 reporting areas (American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Puerto Rico, Republic of Palau, and U.S. Virgin Islands) report cases to CDC, but are not included in the annual incidence for the United States. The laboratory and clinical case definitions are the two diagnostic categories used by the CDC “Case Definitions for Infectious Conditions Under Public Health Surveillance.”

Most verified TB cases are accepted for counting based on laboratory confirmation of *M. tuberculosis* complex from a clinical specimen.

A person may have more than one discrete (separate and distinct) episode of TB. If disease recurs in a person within any 12-consecutive-month period, count only one episode as a case for that year. However, if TB disease recurs in a person, and if more than 12 months have elapsed since the person was discharged from or lost to supervision, the TB is considered a separate episode and should be counted as a new case. *Note:* Discharged from supervision implies completion of therapy.

Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in TB morbidity statistics unless there is concurrent TB.

a. Verified TB Cases

COUNT

Count only verified TB cases that meet the laboratory or clinical case definitions (see Section II). The diagnosis of TB must be verified by the TB control officer or designee. The current CDC surveillance case definition for TB describes and defines the criteria to be used in the case definition for TB disease.

DO NOT COUNT

If diagnostic procedures have not been completed, do not count; wait for confirmation of disease. Do not count a case for which two or more anti-TB medications have been prescribed for preventive therapy for exposure to multidrug-resistant (MDR) TB, or while the diagnosis is still pending.

b. Nontuberculous Mycobacterial Diseases (NTM)

COUNT

An episode of TB disease diagnosed concurrently with another nontuberculous mycobacterial disease should be counted as a TB case.

DO NOT COUNT

Disease attributed to or caused by nontuberculous mycobacteria alone should not be counted as a TB case.

c. TB Cases Reported at Death

COUNT

TB cases first reported to the health department at the time of a person's death are counted as incident cases, provided the person had current disease at the time of death. The TB control officer should verify the diagnosis of TB.

DO NOT COUNT

Do not count as a case of TB if there is no evidence of current disease at the time of death or at autopsy.

d. Immigrants, Refugees, Permanent Resident Aliens, Border Crossers,* and Foreign Visitors³

COUNT

Immigrants and refugees who have been screened overseas for TB and

- have been classified as Class B (B1, B2, or B3)⁴ or resident aliens,
- are not already on anti-TB medications for treatment of TB disease, and
- are examined after arriving in the United States and diagnosed with clinically active TB requiring anti-TB medications, and
- should be counted by the locality of their current residence at the time of diagnosis regardless of citizenship status.

Border crossers* and permanent resident aliens who are diagnosed with TB and plan to receive anti-TB therapy from a locality in the United States for 90 days or more should be counted by the locality where they receive anti-TB therapy.

Foreign visitors (e.g., students, commercial representatives, and diplomatic personnel) who are diagnosed with TB, are receiving anti-TB therapy, **and** plan to remain in the United States for 90 days or more should be counted by the locality of current residence.

**Border crosser — defined, in part, by the U.S. Citizenship and Immigration Services (USCIS)³ as “a nonresident alien entering the United States across the Mexican border for stays of no more than 72 hours.” Border crossers may go back and forth across the border many times in a short period.*

DO NOT COUNT

TB cases in immigrants or refugees who have been classified as Class A with a waiver (TB, Infectious, Noncommunicable for travel purposes)⁴ should not be counted as new cases even if the persons receive routine initial work-ups in the United States. TB in persons who are temporarily (<90 days) in the United States, for whom therapy may have been started but who plan to return to their native country to continue therapy, should not be counted in the United States.

e. Out-of-State or Out-of-Area Residents

COUNT

A person's TB case should be counted by the locality in which he or she resides at the time of diagnosis. TB in a person who has no address should be counted by the locality that diagnosed and is treating the TB. The TB control officer should notify the appropriate out-of-state or out-of-area TB control officer of the person's home locality to (1) determine whether the case has already been counted to avoid "double counting," and (2) agree on which TB control office should count the case if it has not yet been counted.

DO NOT COUNT

Do not count a case in a newly diagnosed TB patient who is an out-of-area resident and whose TB has already been counted by the out-of-area TB control office.

f. Migrants and Other Transients

COUNT

Persons without any fixed U.S. residence are considered to be the public health responsibility of their present locality and their TB case should be reported and counted where diagnosed.

DO NOT COUNT

Cases in transient TB patients should not be counted when there is evidence that they have already been counted by another locality.

g. Federal Facilities (e.g., Military and Veterans Administration Facilities)

COUNT

Cases in military personnel, dependents, or veterans should be reported and counted by the locality where the persons are residing in the United States at the time of diagnosis and initiation of treatment.

However, if military personnel or dependents are discovered to have TB at a military base outside the United States but are referred elsewhere for treatment (e.g., a military base located within the United States), the TB case should be reported and counted where treated and not where the diagnosis was made.

DO NOT COUNT

Do not count if the case was already counted by another locality in the United States.

h. Indian Health Service

COUNT

TB should be reported to the local health authority (e.g., state or county) and counted where diagnosed and treatment initiated. However, for a specific group such as

the Navajo Nation, which is geographically located in multiple states, health departments should discuss each case and determine which locality should count the case.

DO NOT COUNT

Do not count if the case was already counted by another locality.

i. Correctional Facilities (e.g., Local, State, Federal, and Military)

COUNT

Persons who reside in local, state, federal, or military correctional facilities may frequently be transferred or relocated within and/or between various correctional facilities. TB in these persons should be reported to the local health authority and counted by the locality where the diagnosis was made and treatment plans were initiated.

DO NOT COUNT

Do not count correctional facility residents' TB cases that were counted elsewhere by another locality or correctional facility, even if treatment continues at another locale or correctional facility.

j. Peace Corps, Missionaries, and Other Citizens Residing Outside the United States

DO NOT COUNT

TB in persons diagnosed outside the United States should not be counted. TB in these persons should be counted by the country in which they are residing regardless of their plans to return to the United States for further work-up or treatment.

IV. Suggested Administrative Practices

To promote uniformity in TB case counting, the following administrative procedures are recommended:

- (a) All TB cases verified by the 52 reporting areas with count authority (50 states, District of Columbia, and New York City) during the calendar year (by December 31) will be included in the annual U.S. incidence count for that year. All tuberculosis cases verified during the calendar year by a reporting area with count authority from one of the remaining 7 reporting areas (American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Puerto Rico, Republic of Palau, and U.S. Virgin Islands) are also counted but are not included in the annual incidence for the United States. Cases for which bacteriologic results are pending or for which confirmation of disease is questionable for any other reason should not be counted until their status is clearly determined; they should be counted at the time they meet the criteria for counting. This means that a case reported in one calendar year could be included in the morbidity count for the following year. The reporting area with count authority should ensure that there is agreement between final local and state TB figures reported to CDC. Currently, some reporting areas may not use this suggested protocol. Some of these areas may wait until the beginning of the following year when they have received and processed all of the TB cases for inclu-

sion in the annual case count for the previous year. If reporting areas decide to revise their protocols, they should be aware that their TB trends may change.

- (b) TB is occasionally reported to health departments over the telephone, by letter or fax, or on forms other than the Report of Verified Case of Tuberculosis (RVCT). Such information should be accepted as an official morbidity report if sufficient details are provided; otherwise, the notification should be used as an indicator of a possible TB case (suspect) which should be investigated promptly for confirmation.

V. TB Surveillance Definitions

Case - an episode of TB disease in a person meeting the laboratory or clinical criteria for TB as defined in the document “Case Definitions for Infectious Conditions Under Public Health Surveillance”² (see Section II for criteria).

Suspect - a person for whom there is a high index of suspicion for active TB (e.g., a known contact to an active TB case or a person with signs or symptoms consistent with TB) who is currently under evaluation for TB disease.

Verification of a TB case - the process whereby a TB case, after the diagnostic evaluation is complete, is reviewed at the local level (e.g., state or county) by a TB control official who is familiar with TB surveillance definitions; if all the criteria for a TB case are met, the TB case is then verified and eligible for counting.

Counting of a TB case - the process whereby a reporting area with count authority evaluates verified TB cases (e.g., assesses for case duplication). These cases are then counted for morbidity in that locality (e.g., state or county) and reported to CDC for national morbidity counting.

***Mycobacterium tuberculosis* complex** (*M. tuberculosis* complex) - Because most laboratories use tests that do not routinely distinguish *Mycobacterium tuberculosis* from very closely related species, these laboratories report culture results as being positive or negative for “*Mycobacterium tuberculosis* complex.” Although in almost all cases of human disease, isolates in the *M. tuberculosis* complex are, in fact, *M. tuberculosis*, other species are possible. For example, one study in San Diego found that 6% of human tuberculosis was caused by *Mycobacterium bovis*; cultures from these cases would be reported by most laboratories as being positive for *M. tuberculosis* complex. Other species in the *Mycobacterium tuberculosis* complex include *M. africanum*, *M. microti*, *M. canettii*, *M. caprae*, and *M. pinnipedii*. Although *M. microti*, *M. canettii*, *M. caprae*, and *M. pinnipedii* are newly described species, their inclusion in *M. tuberculosis* complex should not impact public health laboratories or programs because only a few laboratories identify to the species level. These seven species are almost identical in DNA homology studies. In terms of their ability to cause clinical disease and be transmissible from person to person, *M. bovis*, *M. africanum*, *M. microti*, and *M. canetti* behave like *M. tuberculosis*; therefore, disease caused by any of the organisms should be reported as TB, using the Report of Verified Case of Tuberculosis (RVCT). The only exception is the BCG strain of *M.*

bovis, which may be isolated from persons who have received the vaccine for protection against TB or as cancer immunotherapy; disease caused by the BCG strain of *M. bovis* should not be reported as TB because the transmission is iatrogenic (treatment-induced), rather than person-to-person or communicable.

Nontuberculous mycobacteria (NTM) - mycobacteria other than *Mycobacterium tuberculosis* complex that can cause human infection or disease. Common nontuberculous mycobacteria include *M. avium* complex or MAC (*M. avium*, *M. intracellulare*), *M. kansasii*, *M. marinum*, *M. scrofulaceum*, *M. chelonae*, *M. fortuitum*, and *M. simiae*. Other terms have been used to represent NTM, including MOTT (mycobacteria other than TB) and “atypical” mycobacteria.

Reporting area - areas responsible for counting and reporting verified TB cases to CDC. Currently there are 60 reporting areas: the 50 states, District of Columbia, New York City, American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Marshall Islands, Puerto Rico, Republic of Palau, and U.S. Virgin Islands. The annual incidence of tuberculosis for the United States is based on 52 reporting areas (the 50 states, District of Columbia, and New York City).

Alien - defined by the U.S. Citizenship and Immigration Services (USCIS)³ as “any person not a citizen or national of the United States.”

Border crosser - defined, in part, by the USCIS³ as “a nonresident alien entering the United States across the Mexican border for stays of no more than 72 hours.” Border crossers may go back and forth across the border many times in a short period.

No TB Classification - Applicants with normal tuberculosis screening examinations.

Class A TB with waiver - All applicants who have tuberculosis disease and have been granted a waiver.

Class B1 TB, Pulmonary -

No treatment

- Applicants who have medical history, physical exam, HIV, or CXR findings suggestive of pulmonary tuberculosis but have negative AFB sputum smears and cultures and are not diagnosed with tuberculosis or can wait to have tuberculosis treatment started after immigration.

Completed treatment

- Applicants who were diagnosed with pulmonary tuberculosis and successfully completed directly observed therapy prior to immigration. The cover sheet should indicate if the initial sputum smears and cultures were positive and if drug susceptibility testing results are available.

Class B1 TB, Extrapulmonary - Applicants with evidence of extrapulmonary tuberculosis. Document the anatomic site of infection.

Class B2 TB, LTBI Evaluation - Applicants who have a tuberculin skin test ≥ 10 mm but otherwise have a negative evaluation for tuberculosis. The size of the TST reaction, the applicant's status with respect to LTBI treatment, and the medication(s) used should be documented. For applicants who had more than one TST, whether the applicant converted the TST should be documented (i.e., initial TST < 10 mm but subsequent TST ≥ 10 mm).

Class B3 TB, Contact Evaluation - Applicants who are a recent contact of a known tuberculosis case. The size of the applicant's TST reaction should be documented. Information about the source case, name, alien number, relationship to contact, and type of tuberculosis should also be documented.

Immigrant - defined by the USCIS³ as “an alien admitted to the United States as a lawful permanent resident. Immigrants are those persons lawfully accorded the privilege of residing permanently in the United States. They may be issued immigrant visas by the Department of State overseas or adjusted to permanent resident status by the USCIS of the United States.”

Permanent Resident Alien - see Immigrant.

Waivers - A provision allows applicants undergoing pulmonary or laryngeal tuberculosis treatment to petition for a Class A waiver. Waivers should be pursued for any immigrant or refugee who has a complicated clinical course and would benefit from receiving treatment of their tuberculosis in the United States. Applicants diagnosed with tuberculosis disease who are both smear- and culture-negative and will be traveling to the United States prior to start of treatment do not need to complete the waiver process.

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1. *Recommendations for Counting Reported TB Cases*. Atlanta: CDC, January 1977.
2. CDC. Case definitions for infectious conditions under public health surveillance. *MMWR* 1997;46(No. RR 10):40–41.
3. *Statistical Yearbook of the Immigration and Naturalization Service, 1994*. Washington, DC: US Department of Homeland Security, U.S. Citizenship and Immigration Services; <http://uscis.gov>.
4. *CDC Immigration Requirements: Technical Instructions for Tuberculosis Screening and Treatment, 2007*. Atlanta: CDC, Division of Global Migration and Quarantine, revised September 2007; http://www.cdc.gov/ncidod/dq/pdf/ti_tb_8_9_2007.pdf.

Notes

- Reference to details of FDA-approved labeling for NAA (IIa) was deleted from this document in September 2002.
- A note of clarification was added to Section III, Counting TB Cases, in September 2003.
- Clarification of TB classification of immigration applicants was modified in Section V, TB Surveillance Definitions, in September 2007.

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